DOCUMENT RESUME

ED 169 743

EC 114 708

TITLE	Independent Curriculum Enrichment Studies: Learning Packages for the Gifted. Table of Contents; Teachers' Sheets.
INSTITUTION	Lafayette School District, Calif.
PUB DATE	76
NOTE	825p.; Two binders containing materials for use by students may be borrowed ; Not available in hard copy due to marginal reproducibility of original
AVAILABLE FROM	Lafayette School District, P.O. Box 714, Lafayette, California 94549
EDRS PRICE	MF05 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Art Activities; *Educational Games; *Elementary Education; *Gifted; Health Education; *Independent Study; Individualized Instruction; Language Arts; Literature; Mathematics; Perception; Reading Skills; Sciences; Social Studies; Study Skills; *Talented Students; Thought Processes
IDENTIFIERS	Classroom Plans

ABSTRACT

The looseleaf binder contains a series of 268 learning packages for gifted and talented elementary school students, divided into 13 subject area sections, including art, chess, general, health, language arts, literature, mathematics, perception, reading, science, social studies, study skills, and thinking skills. Two additional sections include forms for the students to evaluate the program, and a teacher's guide on how to conduct the program. Each of the 268 units is intended to be used in conjunction with various worksheets, tape recordings, slides, microviewers, puzzles, books, activity cards, games, task cards, and other instructional materials kits, that are separately available. Each unit includes a description of materials needed, a list of work the student must turn in, a general description of the unit, and teacher information such as time required. Most units are designed for one or several students. The individual lessons cover such things as cartooning, food groups, letter writing, news reporting, secret codes, anthropology, dinosaurs, career awareness, and maps and globes. (DLS)

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Independent Curriculum Enrichment Studies

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EDUCATION & WELFARE
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Table of Contents

BEST COPY AVAILABLE

ART

Title	Grades	Format	No. Students
Cartooning	2-6	Study	1-2
How an artist sees and works I	2-6	Tape & study	1-5
How an artist sees and works II	2-6	Tape & study	1-5
How an artist sees and works III	2-6	Tape & study	1-5
How an artist sees and works IV	3-6	Tape & study	1-5
A study in contrast	2-6	Study	1

CHESS

Title	Grades	Format	No. Students
Bobby Fischer teaches chess	4-6	Programmed book	1
Classic chess problems	5-6	Book	1
How to solve chess problems	5-6	Book	1-2
101 chess problems for beginners	5-6	Book	1-2
Playing chess games	4-6	Game	2
Programmed introduction to the game of chess	5-6	Programmed book	1

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

GENERAL

Title	Grades	Format	No. Students
America	3-6	Task cards	1-2
Find out about	3-6	Study	1-4
Ideas for learning centers	4-6	Book	1-2
Mind expanders	4-6	Task cards	1
A student guide to ICES	3-6	Tape & study	1-8

HEALTH

Blood and guts	4-6	Study	1-5
Food groups	1-2	Study	1-2

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LANGUAGE ARTS

Title	Grades	Format	No. Students
All about me	2-3	Task Cards	1
Being Me	4-6	Workbook	1
Boggle	2-6	Game	1-6
Comprehension & vocabulary development, packet F	4-6	Task cards	1
Creative writing using both sides of the brain	3-6	Study	1
Descriptive writing	4-6	Tape/workbook	1
Dill pickles for the King's chiffon pie	4-6	Study	1
The flying you!	3-5	Study	1
Following directions--read, think, do	1-3	Workbook	1
Fun with language	3-6	Study	1
Fun with picture crosswords	1-3	Task cards	1
Grow in word power	5-6	Workbook	1
Homonym concentration game	3-5	Game	2-4
How to write a bibliography	4-6	Study	1
Imaginanimoddities	3-6	Study	1-6
Imagine and write	3-6	Workbooks	1
Imagine that	1-3	Tapes/worksheets	1-5
Language scoop	3-6	Book	1
Letter writing	4-5	Tapes/workbooks	1
Listening skills, level C	1-3	Tapes/worksheets	1-5
Making a dictionary	5-6	Study/worksheet	1
My day as a ____________	3-6	Study	1

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LANGUAGE ARTS (con't)

Title	Grades	Format	No. Students
News capers	4-6	Task cards	1-3
News reporting	5-6	Tapes/workbooks	1
People projects, set A	4-6	Task cards	1
People projects, set B	5-6	Task cards	1
Poetry patterns	5-6	Study	1-2
Poetry potpourri	2-4	Activity cards	2-3
Rebuses, signs and symbols	2-4	Task cards	1
Reporting	5-6	Tapes/workbooks	1
Spotlight on spelling book 2	4-6	Activity pages	1
Story sparkers	5-6	Idea cards	1
Story starters 1, intermediate	4-6	Idea cards	1
Story starters 2, primary	2-3	Idea cards	1
Story writing	4-6	Tapes/workbooks	1
Syllable puzzles	4-6	Study	1
The thing	4-6	Study	1 or more
Underwater fantasy	4-6	Study	1 or more
Vocabulary development	5-6	Study	1
Vocabulary workbooks 1-2	1-2	Miniveritech and workbooks	1
Vocabulary workbooks 3-7	2-4	Veritech and workbooks	1
What would happen if?	3-6	Task cards	1
The word bird	4-5	Puzzle pages	1
You can write Chinese	3-4	Book	1

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LITERATURE

Title	Grades	Format	No. Students
Adam of the road	4-6	Study	1-5
Amelia Bedelia	1-2	Study	1
And to think that I saw it on Mulberry Street	2-3	Study	1
Andy and the lion	2	Study	1
Be nice to spiders	2	Study	1
The biggest bear	2	Study	1
Blackmail machine	4-6	Study	4-6
Blaze and the indian cave	2	Study	1
Book games	1-6	Study	1-2
Book of three	4-6	Study	1
Book sharing activity cards	2-5	Task cards	1
Books for animal lovers	3-6	Study	2
Bread and jam for Frances	1-3	Study	2-4
Brighty of the Grand Canyon	5-6	Study	1
Calling all sports fans	3-6	Study	2
"I can't" said the ant	1-2	Study	1
The cay	5-6	Study	4-5
Charlotte's web	3-5	Study	1
Creative catactivities I	1-4	Study	1
Creative catactivities II	3-6	Study	1
Do you love a mystery?	3-6	Study	2
Egypt game	4-6	Study	1
The fast sooner hound	2-3	Study	1
Fiddling with folklore	6	Study	4-5

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LITERATURE (con't)

Title	Grades	Format	No. Students
Five boys in a cave	4-6	Study	1
Flip	2	Study	1
From the mixed-up files of Mrs. Basil E. Frankweiler	4-6	Study	1
Fun for all	3-6	Study	2
Gilberto & the wind	2	Study	1-4
The great brain	4-6	Study	1
The great cheese conspiracy	3-4	Study	1-6
Half magic	3-5	Study	1
Harriet the spy	4-6	Study	4-6
Harry the dirty dog	1-2	Study	1
Henry Huggins	3-5	Study	1
The hobbit	6	Study	1-4
Homer Price	3-6	Study	1
Inch by inch	1-2	Study	1
Is reading your bag?	3-6	Study	1
Island of the blue dolphins	3-6	Study	1-2
James and the giant peach	3-5	Study	1
Keys to understanding mankind	4-6	Task cards	1-2
Leo, the late bloomer	1-2	Study	1
Lion, the witch and the wardrobe	4-6	Study	1
	4-6	Kit	1
The Littles	2	Study	4-6
Little witch	2-3	Study	1
Make mine magic	3-6	Study	1

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LITERATURE (con't)

Title	Grades	Format	No. Students
Make way for ducklings	1-2	Study	1
May I bring a friend?	1-2	Study	1
Miss Bianca in the Salt Mines	5-6	Study	1
The mouse and the motorcycle	3-6	Study	1
Mouse house	2-4	Study	2-4
On the banks of Plum Creek	3-5	Study	1
Oscar the otter	2	Study	1
Otis Spofford	3-6	Study	1
Phantom tollbooth	4-6	Study	3-5
A picture for Harold's room	1-2	Study	1
The pushcart war	5-6	Study	1
Rabbit hill	4-6	Study	1 or more
Ramona the pest	4-5	Study	1
Read a biography	5-6	Study	1 or more
Read a book about people	3-6	Study	2
Read a library book	1-2	Tape/study	1-2
Read a tale of courage and daring	3-6	Study	2
Reading for fun	2-3	Study	1
Roosevelt Grady	3-5	Study	3
Runaways	3-6	Study	1
Sesame Street books	1-2	Tape/book	1
Sing down the moon	4-6	Study	1
Slavery and the Civil War	4-6	Study	1
Snowbound in Hidden Valley	3-4	Study	2-3

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LITERATURE (con't)

Title	Grades	Format	No. Students
Snowy day	2	Study	1-4
The steadfast tin soldier	2	Study	1
Super jobs for animal story readers	2-3	Study	1
Swimmy	1-2	Study	1
Tripod trilogy	5-6	Study	1-2
The 21 balloons	4-6	Study	1
Two societies	6	Study	1
The ugly duckling	1-2	Study	1
Watch out for witches	4-6	Study	1
What does the future hold?	4	Study	1 or more
Why can't I?	2	Study	1
Witch of Blackbird Pond	6	Study	1
Wrinkle in time	5-6	Study	2-4

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MATHEMATICS

Title	Grades	Format	No. Students
Aftermath series--books I, II, III, IV	4-6	Activity pages	1
Candy sticks	1-4	Task cards	1
Computers	4-5	Tapes/worksheets	1-5
Cross number puzzles	1-3	Book/worksheets	1
First book of space form making	4-6	Book	1
Four square	3-6	Task cards	1
Fun squares	4-6	Task cards	1
Fun with geometric activities	2-6	Workbook	1
Games, puzzles, patterns	5-6	Activity pages	1-2
Geoboard tasks	4-6	Task cards	1
Geometry exercises	6	Study	1
Graph games	2-3	Book	1-2
Graphiti	4-6	Activity pages	1
Introducing the metric system with activities	5-6	Experiment book	1-4
It's about time	1-3	Task cards	1
Labyrinthian lines	3-4	Problem book	1
Let's calculate	4-6	Activity pages	1
Math activity cards for fun	2-3	Task cards	1-2
Math applications kit--cards	4-6	Task cards	1-4
Math applications kit--student handbook	4-6	Workbook	1-4

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MATHEMATICS (con't)

Title	Grades	Format	No. Students
Math balance	3-5	Task cards	2
Math games	3-5	Task cards	1 or more
Math magic probability	3-4	Study	1
Metric number sticks	1-6	Task cards	1
Money matters	2-4	Task cards	1
More fun & games with math --primary	1-3	Book	1-4
Numbers and clues	2-4	Task cards	1
Pattern blocks record sheets	3-6	Worksheets	1
Pattern blocks task cards	2-5	Task cards	1-4
Patterns and number puzzles	1-2	Book/worksheet	1
Pentamino blocks	3-6	Task cards	1
Primary dimension color games	2-3	Worksheets	1
Primary dimension color pictures	1-2	Worksheets	1
Primary dimension number puzzles	2-3	Book	1
Primary dimension shape puzzles	1-2	Book	1
Primary dimension sum-action	1-2	Worksheets	1
Probability	4-6	Book	1-2
Projects in metric measurement, set 1	3-5	Task cards	1-2
Property blocks	3-6	Task cards	1
Rainbow blocks	3-6	Task cards	1

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MATHEMATICS (con't)

Title	Grades	Format	No. Students
A roomful of water	4-6	Study	1 or more
School statistics or How much did our school grow?	4-6	Study	6-10
SEE calculator	3-6	Task cards	2
Skills for everyday living, book I	6	Workbook	1
Skills for everyday living, (blue book)	5-6	Workbook	1
Soma cubes	4-6	Task cards	1
Supercube	4-6	Task cards	1-2
The tangram	1-3	Book/task cards	1
Tangram tasks	4-6	Task cards	1-2
Tangranimals	1-3	Workbook	1
Tantalizing totals	3	Problem book	1

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PERCEPTION

Title	Grades	Format	No. Students
Design blocks and patterns	1-6	Task cards	1
One to ten, count again	2-4	Book	1
Secret codes	3-5	Task cards	1
Take another look	2-4	Book	1

READING

Individualized reading job cards	4-6	Task cards	1
Read and reason	3-4	Task cards	1
Read better, learn more	5-6	Workbooks	1
Reading activity cards for fun	2-3	Task cards	1-2
Reading comprehension activity cards for fun	2-3	Task cards	1

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SCIENCE

Title	Grades	Format	No. Students
Anthropology I	4-6	Study	1-2
Comets	4-6	Study	1-4
Conserving our environment	4-6	Tapes/worksheets	1-5
Dinosaur study	3-6	Study/worksheets	1 or more
Energy science activity pack	3-6	Task cards	1
Grouping animals	5-6	Programmed book	1-4
How scientists think and work	6	Programmed book	1-4
How we forecast the weather	4-6	Programmed book	1-4
Insects	4-5	Study	1-4
Introduction to the world of the microscope	5-6	Slides/microviewer	1
Laboratory laughter	5-6	Book	1
Learn the morse code	4-6	Kit	2
Look at Annette	2-4	Book	1-2
Make a bigger puddle, make a smaller worm	2-4	Book	1-2
Make a tool	3-6	Task cards	1-2
Microscope I	4-6	Tape & study	1-5
Microscope II	4-6	Tape & study	1-5
Microscope III	4-6	Tape & study	1-5
Our solar system	6	Programmed book	1-4

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SCIENCE (con't)

Title	Grades	Format	No. Students
Plants and animals	3-5	Task cards	1
Predator	5-6	Game	1-6
Weather, climate & man	4-6	Tapes/worksheets	1-5
Your heart and circulation	4-6	Programmed book	1-4

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SOCIAL STUDIES

Title	Grades	Format	No. Students
Amos Fortune: free man	4-5	Study	1-6
Career awareness	4-5	Workbook	1-6
French and Indian war and revolution	4-6	Study	1
Fun with mapping skills	2-3	Task cards	1
Johnny Tremain	5-6	Study	1-5
Latitude and longitude	5-6	Programmed book	1-4
Maps and globes	3-4	Study	1-4
A night to remember	6	Study	4-6
A place to live	2-3	Study	1
Settling of the west	4-6	Study	1
The time machine	5-6	Study	1
A world full of foods	3-5	Study	1-4
Your school - how does it run	5-6	Study	1

STUDY SKILLS

How to research and write a report	5-6	Programmed book	1-4
Quest	5-6	Task cards	1
Search and research	2-3	Task cards	1 or more
Superbrain strains	4-6	Task cards	1
You learn to type!	5-6	Tapes/book	1

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THINKING SKILLS

Title	Grades	Format	No. Students
Abominable logic	4-6	Study	1
Associations	1-2	Task cards	1
The book of think	3-6	Study	1
Brain boosters	3-6	Task cards	1-2
Can you imagine	1-3	Workbook	1
Centuous math	4-6	Task cards	1
Color puzzles	3-6	Book	1
For those who wonder	3-6	Workbook	1
*How do you learn best?	4-6	Tape & study	1-2
Individualized game and puzzle cards	3-5	Task cards	1
Invitations to speaking & writing creatively	5-6	Workbook	1
Invitations to thinking & doing	3-6	Workbook	1
Logic links	2-4	Study	1
The productive thinking program	4-6	Workbooks	1
Reading, thinking and reasoning skills program	1-6	Workbook	1
Think-a-bit	1-3	Task cards	1-2
Thinklab	2-6	Task cards	1 or more
Weeple people	3-6	Book	1-2
Whodunit?	2-6	Study	1

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be Cartooning.

In this study you will learn something about cartoons and how they are made. You will design your own cartoon characters, plan a story and make a comic strip using them. You will choose one or more activities.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**your copy of this study...Check it out from the ICES file.

**drawing paper, writing paper, pencil, eraser, ruler and colored pens or pencils.

The work you turn in will be this contract and:

Four or more cartoons to show feelings

Examples of newspaper cartoons

Your character portraits

Your story outline

Your cartoon strip

Your activity

When you need help, see

Try to finish your study by

Turn in the finished work to

ART
Cartooning

Teacher Information

Grades 2-6; for one or two students.

Time: 2-5 periods.

IMC Information

Study: cover and 6 pages.

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be How an Artist Sees and Works I—The Family in Art.

This is a study written especially for ICES. There is a tape cassette to go with it.

Materials you will need are

- **your copy of this contract...Take one from the ICES file
- **a copy of the study...You may check it out from the ICES file
- **the tape cassette.....You will find it in the Media Resource Center with the call number RT-743-H
- **crayons, pencil and drawing paper
- **a cassette player
- **Childcraft Encyclopedia, 1972 or newer edition or the 1968 Childcraft Annual...You will find one of these in the Media Resource Center with the call number R-808.8-C

The work you turn in will be

a drawing of your family.

When you need help, see

Try to finish your study by

Turn in the finished work to

ART
How an Artist Sees and Works I—The Family in Art

Teacher Information

Grades 2-6; for one to five students
Time: at least two periods

IMC Information

Study: cover and 6 pages

Additional material: district-made tape cassette

Commercial material: Childcraft Encyclopedia (1972 edition or newer) from Field Enterprises, Merchandise Mart Plaza, Chicago IL, 60654, $75.00

Processing: Childcraft and the tape cassette are cataloged into the library.

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be How an Artist Sees and Works II-Primary Colors and Using Water Colors. This is a study written especially for ICES. There is a tape cassette to go with it.

Materials you will need are **your copy of this contract... Take one from the ICES file
**a copy of the study..You may check it out from the ICES file
**the tape cassette.....You will find it in the Media Resource Center with the call number RT-752-H.
**a blank color wheel...Take one from the ICES file
**paints, pencil and drawing paper
**Childcraft Encyclopedia, 1972 or newer edition or the 1968 Childcraft Annual...You will find one of these in the Media Resource Center with the call number R-808.8-C

The work you turn in will be
**the beginning of a color wheel showing the three primary colors
**a painting which uses the three primary colors plus black and white

When you need help, see

Try to finish your study by

Turn in the finished work to

ART

How an Artist Sees and Works II--Primary Colors and Using Water Colors

Teacher Information

Grades 2-6; for one to five students
Time: two to five periods

IMC Information

Study: cover and 8 pages
Consumable: color wheel (run on white paper)
Additional material: district-made tape cassette
Processing: Catalog Childcraft and the tape cassette into the library

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be How an Artist Sees and Works III--Secondary and Complementary Colors.

In this study you will learn the secondary colors and finish the color wheel you began in "How an Artist Sees and Works II." You will discover how artists use complementary colors by studying paintings, and will mix the complementary colors.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**the tape cassette...You will find it in the Media Resource Center with the call number RT-743-H.
**pencil, paints, brushes, art paper, paper towels, and water. If these are not available in the Media Resource Center, find out if they can be obtained in your classroom.
**a cassette player.
**Childcraft Encyclopedia, 1972 or newer edition or the 1968 Childcraft Annual... You will find one of these in the Media Resource Center with the call number R-808.8-C.

The work you turn in will be a completed color wheel, the experiment sheet, and a completed painting using ideas from the study

When you need help, see

Try to finish your study by

Turn in the finished work to

ART

How an Artist Sees and Works III--Secondary and Complementary Colors

Teacher Information

Grades 2-6; for one to five students.

Time: At least two periods.

IMC Information

Study: cover and 5 pages.

Consumable: Color Experiments I.

Additional material: district-made tape cassette.

Commercial material: Childcraft Encyclopedia (1972 edition or newer) from Field Enterprises, Merchandise Mart Plaza, Chicago IL, 60654, at $75.00.

Processing: Childcraft and the tape cassette are cataloged into the library.

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be How an Artist Sees and Works IV - Color! Color! Color!

You will read the study and listen to the tape.
You will do two worksheets, practice mixing colors and make one painting.
You will study paintings from Childcraft, Volume 13.
You will choose one additional activity.
You will learn how to make a tint, how to make a shade, what analogous colors are, what an accent color is, what a monochrome is and how to mix colors to make many different hues.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...You may check it out from the ICES file.
- **the tape How an Artist Sees and Works IV...You will find it in the Media Resource Center under the call number RT-752-H.
- **Worksheets I and II...Take these from the ICES file.
- **a box of paints with eight colors.
- **white paint and a brush.
- **a large container of water.
- **paper towels.
- **at least two pieces of white art paper and scratch paper.

The work you turn in will be

Worksheets I and II.

painting of analogous colors with accent.

one activity.

When you need help, see

Try to finish your study by

Turn in the finished work to

ART
How An Artist Sees and Works - IV, Color! Color! Color!

Teacher Information

Grades 3-6; for one to five students.

Time: Three or more periods. The teacher can be the best judge of this by his/her knowledge of the student doing the study.

Assignment: Be sure the students allow plenty of time to get out the materials and especially to clean the paints and put them away. Directions should be followed carefully.

IMC Information

Study: Cover and 5 pages.

Additional material: District made tape.

Consumable: Worksheet I - Tints, Worksheet II - Shades.

Commercial material: Childcraft Encyclopedia (1972 edition or newer) from Field Enterprises, Merchandise Mart Plaza, Chicago IL, 60654, at $75.00.

Processing: Childcraft and the tape cassette are cataloged into the library.

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Independent Curriculum Enrichment Studies

ART

This study is for

Date to begin is

Your study will be A Study In Contrasts

In this study you will learn something about contrast and how artists use it for different purposes. You will draw at least two charcoal pictures using contrasts.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the Media Resource Center.
**Childcraft Vol. 13...This can be obtained from the Reference section in the Media Resource Center.
**charcoal.
**two sheets of white charcoal paper.
**a kneaded eraser.
**a smock or an old shirt.
**blackboard eraser.
**spray can of fixative (if available).

The work you turn in will be two completed charcoal drawings.

When you need help, see

Try to finish your study by

Turn in the finished work to

ART
A Study In Contrasts

Teacher Information

Grades: 2-6; for 1 student.

Time: 3-5 periods.

Note: Art materials required for this study must be obtained locally at the school since MGM funds cannot be spent for this purpose. Do not assign this study unless these materials are available.

IMC Information

Study: Cover and 6 pages.

Commercial material: Childcraft Encyclopedia (1972 edition or newer) from Field Enterprises, Merchandise Mart Plaza, Chicago, Ill., 60654, at $75.00.

Processing: Catalog Childcraft into the library.

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Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be Bobby Fischer Teaches Chess by Bobby Fischer.

This study is a programmed book to teach you how to play chess.

Materials you will need are

**a copy of this contract...Take one from the ICES file.

**the book...You will find it in the Media Resource Center with the call number 794.1-F.

**a chess set...You may use or borrow one in the Media Resource Center.

**pencil and paper.

The work you turn in will be

(1) Your answers. Do not write in the book. Write on your own paper. Write the answer to each question before you look at the answer. Correct your answer if you know why it was wrong. If you do not know, back up and read the material again. If that does not work, ask for help.

(2) Your game record. Play three complete games with an opponent who already knows how to play chess. Write down opponent, time and outcome of each game to make your game record.

When you need help, see

Try to finish your study by

Turn in the finished work to

CHESS
Bobby Fischer Teaches Chess

Teacher Information

Grades 4-6; for one student.

Time: 15 to 20 periods.

Assignment: The entire book is assigned, although a student should certainly have the option of asking you whether he may discontinue this study if he decides he does not like it.

IMC Information

Commercial material: Paperback book from Bantam Books, 666 Fifth Avenue, New York, NY 10019, $1.95. Chess set.

Processing: Catalog into the library.

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Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be Classic Chess Problems by Kenneth S. Howard.

This study is a book of 155 chess problems that have been composed by famous players. The solutions are in the back of the book.

You need to know how to play chess very well to do this study. You must also know how to write down chess moves.

Choose ______ problem(s) to try this time.

Materials you will need are

**a copy of this contract...Take one from the ICES file.

**the book...You will find it in the Media Resource Center with the call number 794.1-H.

**a chess set...You may use or borrow one in the Media Resource Center.

**pencil and paper.

The work you turn in will be your notebook. For each problem you try, write down the problem number, how much time you worked on it, and the moves that solve the problem. Then check your answer in the back of the book. Mark your solution right or wrong. (If your answer is wrong and you do not know why, you may want to ask an expert chess player for help.

When you need help, see

Try to finish your study by

Turn in the finished work to

CHESS
Classic Chess Problems

Teacher Information

Grades 5-6; for one student.

Time: 1 to 2 periods per problem.

Assignment: Write in the number of problems you want the student to try. This is a very difficult book, so you may want to assign only one or two problems at a time. "101 Chess Problems for Beginners" or "How to Solve Chess Problems" should be done first. This study may be repeated, using different problems.

IMC Information

Commercial Material: Paperback book from Dover Publications, 180 Varick Street, New York, NY 10014, $2.00. Chess set.

Processing: Catalog into the library.

9/74

Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be How to Solve Chess Problems by Kenneth S. Howard.

This study is a book in two sections. The first section tells how to solve a chess problem. Read this section before you try any problems. The second section contains 112 chess problems. The solutions are in the back of the book.

You need to know how to play chess very well to do this study. You must also know how to write down chess moves.

Choose _____ problem(s) to try this time.

Materials you will need are

- **a copy of this contract...Take one from the ICES file.
- **the book...You will find it in the Media Resource Center with the call number 794.1-H.
- **a chess set...You may use or borrow one in the Media Resource Center.
- **pencil and paper.

The work you turn in will be your notebook.

For each problem you try, write down the problem number, how much time you worked on it, and the moves that solve the problem. Then check your answer in the back of the book. Mark your solution right or wrong. (If your answer is wrong and you do not know why, you may want to ask an expert chess player for help.

When you need help, see

Try to finish your study by

Turn in the finished work to

CHESS
How to Solve Chess Problems

Teacher Information

Grades 5-6; for one or two students.

Time: 3-5 periods to read introduction plus 1-2 periods per problem.

Assignment: Write in the number of problems you want the student to try. This is a difficult book, so you may want to assign only one or two problems at a time. This study may be repeated, using different problems.

IMC Information

Commercial material: Paperback book from Dover Publications, 180 Varick Street, New York, NY 10014, $1.75. Chess set.

Processing: Catalog into the library.

9/74

Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be 101 Chess Problems for Beginners by Fred Reinfeld.

This is a book that shows how to solve chess problems. You must already know how to play chess well before you do this study. You must also know how to write chess moves.

Read the introductory information, especially pages 17-20. Then try problems 1-7. The book explains how to go about solving the problems. If you are enjoying this, go on and try problems 8-11. Check your answers in the back of the book. If you like this study, keep doing problems as long as you wish. If this study is too hard for you, or if you do not like it, see your teacher and choose another project.

Materials you will need are:

**your copy of this contract..take one from the ICES file.

**the book...You will find it in the Media Resource Center under the call number 794.1-R

**a chess set... You may use or borrow one in the Media Resource Center.
**pencil and paper.

The work you turn in will be:

your notebook. For each problem you try, write down the problem number, how much time you worked on it, and the moves that solved the problem. Then check your answer in the back of the book. Mark your solution right or wrong. If your answer is wrong and you do not know why, you may want to ask an expert chess player for help.

When you need help, see

Try to finish your study by

Turn in the finished work to

CHESS
101 Chess Problems for Beginners

Teacher Information

Grades 5-6; for 1 or 2 students

Time: 2 periods for introduction, 2 periods for the first seven problems, 20 to 40 minutes per problem thereafter.

Assignment: Rather than to let the student recede as long as he wishes, you may prefer to indicate a specific number of problems for him to do.

IMC Information

Commercial material: Book from Wilshire Book Co., 12015 Sherman Road, North Hollywood, CA 91605, $ 2.00. Chess set.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be playing chess games. Play ____ games of chess with the same partner. For each game write down your names, the date(s) on which each game was played, how many moves White made, and how many minutes the game lasted. Show who won, or that the result was a stalemate. If checked, also do the following:

- ☐ Make a diagram of the position of all the pieces at the end of the game.
- ☐ Make a written record of each move as you play the game. If you do not know the correct way to write down your moves, find out from a chess bo in the Media Resource Center.
- ☐ Choose one game and explain how you might have made better moves.

Materials you will need are a chess set and pencil and paper. You will also need your copy of this contract. Take one from the ICES file.

The work you turn in will be your record of chess games.

When you need help, see

Hint: If you decide you need to learn more about the ways to win at chess, ask your teacher if you can review one of the ICES books on chess.

Try to finish your study by

Turn in the finished work to

CHESS
Playing chess games

Teacher Information

Grades 4-6; for two students

Time: one to three periods per game

Assignment: Be sure to indicate how many games the students should play and to check which, if any, of the additional activities you would like the students to complete. Through the students' own self-assessment or by means of examining the games, there should eventually be some effort toward improvement of playing skills. Students may well find they want to review portions of Programmed Introduction to the Game of Chess or Bobby Fischer Teaches Chess, or to get some coaching from a chess player on your faculty in order to improve their ability.

IMC Information

There are no additional materials or sheets to accompany this study.

3/75

Independent Curriculum Enrichment Studies

CHESS

This study is for

Date to begin is

Your study will be A Programmed Introduction to the Game of Chess

This is a programmed book. You will learn step by step how to play the game of chess. You will find it helpful to have a chess board and a set of chess pieces to set up and work with as you are studying the book.

Materials you will need are

*a copy of this contract...Take one from the ICES file.

**the book...You will find it in the Media Resource Center with the call number KS-794.1-P.

**a chess set.

**pencil and paper.

The work you turn in will be

1. Answer sheets. Do not write in the book, but write the answers to the questions on your own paper. Write your answer before you look to see whether or not it is correct.

2. Record of three games. Play three complete games with a partner who already knows how to play chess. Write your partner's name, the length of time that it takes you to complete the game, and the outcome of each game. You may record this information on the back of your contract sheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

CHESS

Programmed Introduction to the Game of Chess

Teacher Information

Grades 5-6; for one student

Time: 10 periods to complete the book; 3-9 additional periods to play the three games.

Assignment: The entire book must be assigned. Perhaps a student could report his progress to a teacher or aide once a week.

IMC Information

Commercial material: the book from Behavioral Research Laboratories, Ladera Professional Center, Box 577, Palo Alto, CA 94302, at $4.46. Chess Set.

Processing: Catalog the book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

GENERAL

This study is for

Date to begin is

Your study will be America!

A set of 44 cards giving you activities having to do with the country in which you live. You and your teacher will choose which cards you will do. These are fun activities, many of which you can work on together with a friend.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a set of America cards...Check one out of the Media Resource Center. It will be under the call number KS-973-A.

**other material as required by the cards you choose.

The work you turn in will be

☐ Your work as asked for by the cards you choose or your answers to the questions on the cards as required. I plan to do cards number (list numbers) ________

____

____

When you need help, see

Try to finish your study by

Turn in the finished work to

GENERAL
America

Teacher Information

Grades 3-6; for one or two students.

Time: One or more periods depending on the difficulty and the number of cards chosen.

Assignment: Not all of the cards will be appropriate for all grade levels listed. Card activities should be assigned according to the needs and abilities of the students. Many of the activities would be fun for two students to work on together. Activities vary from art projects, writing projects, research oriented projects, planning projects, thinking projects, puzzle, drama, construction or music projects, etc., all having something to do with America.

IMC Information

Additional teacher information: answers (for some cards) 1 page.

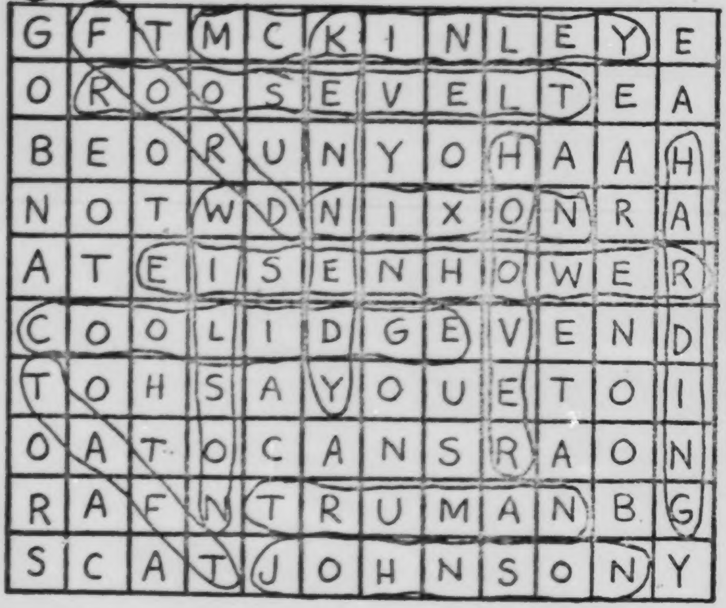
Commercial materials: America! Activity Cards are available from Warren's Educational Supplies, 1900 Detroit Ave., Concord CA, 94518, at $4.95 per set.

Processing: Remove title and suggestion cards. Xerox two answer cards onto a single page to immediately follow teachers sheet in binder. Catalog card set into library.

8/77

ANSWERS

WORDHUNT!

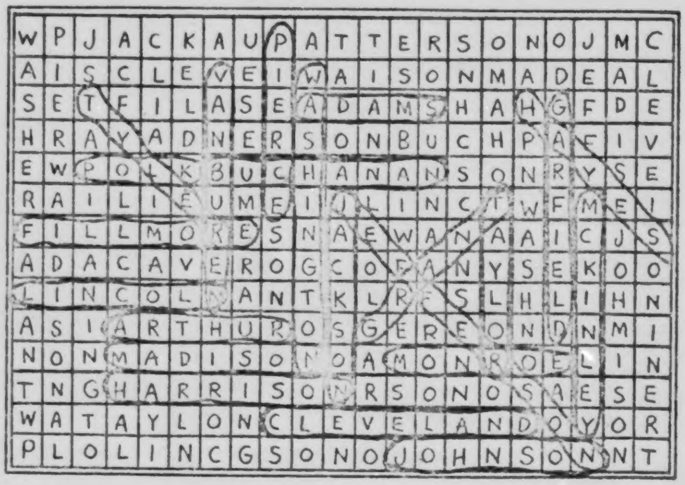


G	F	T	M	C	K	I	N	L	E	Y	E
O	R	O	O	S	E	V	E	L	T	E	A
B	E	O	R	U	N	Y	O	H	A	A	H
N	O	T	W	D	N	I	X	O	N	R	A
A	T	E	I	S	E	N	H	O	W	E	R
C	O	O	L	I	D	G	E	V	E	N	D
T	O	H	S	A	Y	O	U	E	T	O	I
O	A	T	O	C	A	N	S	R	A	O	N
R	A	F	N	T	R	U	M	A	N	B	G
S	C	A	T	J	O	H	N	S	O	N	Y

CARD #3 WORD HUNT

WORDHUNT!

Presidents before 1900 (There are 22 hidden).



W	P	J	A	C	K	A	U	P	A	T	T	E	R	S	O	N	O	J	M	C
A	I	S	C	L	E	V	E	I	W	A	I	S	O	N	M	A	D	E	A	L
S	E	T	F	I	L	A	S	E	A	D	A	M	S	H	A	H	G	F	D	E
H	R	A	Y	A	D	N	E	R	S	O	N	B	U	C	H	P	A	F	I	V
E	W	P	O	L	K	B	U	C	H	A	N	A	N	S	O	N	R	Y	S	E
R	A	I	L	I	E	U	M	E	I	J	L	I	N	C	T	W	F	M	E	I
F	I	L	L	M	O	K	E	S	N	A	E	W	A	N	A	A	I	C	J	S
A	D	A	C	A	V	E	R	O	G	C	O	F	A	N	Y	S	E	K	O	O
L	I	N	C	O	L	N	A	N	T	K	L	R	F	S	L	H	L	I	H	N
A	S	I	A	R	T	H	U	R	O	S	G	E	R	E	O	N	D	N	M	I
N	O	N	M	A	D	I	S	O	N	O	A	M	O	N	R	O	E	L	I	N
T	N	G	H	A	R	R	I	S	O	N	R	S	O	N	O	S	A	E	S	E
W	A	T	A	Y	L	O	N	C	L	E	V	E	L	A	N	D	O	Y	O	R
P	L	O	L	I	N	C	G	S	O	N	O	J	O	H	N	S	O	N	N	T

CARD #4 WORD HUNT

ANSWERS

CARD 6

1. Alaska
2. Alaska
3. Hawaii
4. Maine
5. Alaska
6. Calif.
7. (22) Alaska, Hawaii, Wash., Ore., Calif., Texas, Louisiana, Miss., Ala., Fla., Geo., S. Carolina, N. Car., Virg., Del., N.J., N.Y., Conn., R. I., Mass., N. H., Maine.
8. (13) Alaska, Wash., Idaho, Montana, N. Dakota, Minn., Mich., Ohio, Penn., N.Y., Vt., N.H., Maine

CARD 9

1. Washington
2. Lincoln
3. Hamilton
4. Jackson
5. Grant
6. Franklin
7. Lincoln
8. Jefferson
9. F.D.R.
10. Washington

CARD 12

1-d. Franklin D. Roosevelt
2-a. Martin Luther King
3-b. Patrick Henry
4-c. John F. Kennedy

CARD [illegible]

1 _____ d
2 _____ g
3 _____ c
4 _____ e
5 _____ h
6 _____ j
7 _____ a
8 _____ f
9 _____ i
10 _____ b

CARD 26

1. Cooper - makes barrels.
2. Smith - metal worker (goldsmith, blacksmith)
3. Thatcher - thatches roofs
4. Carpenter - obvious
5. Miller - grinds grain
6. Mason - cuts stone, sets brick
7. Shepherd - obvious
8 - Baker - obvious
9. Wainwright - makes wagons
10. Tanner - cures hides
11. Binder - binds books
12. Carver - obvious

*Meadows, Wood, and Brooks probably describe where they lived. Long and Little may describe a physical trait of the family at that time.

CARD 13

1-b. John Paul Jones
2-d. Theodore Roosevelt
3-a. Harry S. Truman
4-c. Abraham Lincoln

CARD 31

1. Republicans & Democrats
2. Republicans
3. Democrats
4. Grand Old Party, Republicans

Independent Curriculum Enrichment Studies

GENERAL

This study is for

Date to begin is

Your study will be Find Out About.

With this study, you will be able to do library research on any topic that you or your teacher may choose. You may do this study more than one time, using a different topic each time you do it. This will be your chance to investigate a subject that you have always wanted to know more about.

Write here the subject you will work with: ______________________

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the Find Out About study...Check one out from the ICES file.

**you will need to decide what materials you will need to do your own study...Be sure to list them in your study plan.

The work you turn in will be

☐ Your first step is to write up a study plan. You need to tell what topic you intend to study, what materials you will need, what you hope to find out; about how long you think it will take you to complete your study, and the work that you will complete to show what you have learned. Have your study plan checked before you go on to the next step.

☐ Now you are ready to carry out the study which you have planned. Your completed work will be whatever you have written up in your study plan.

When you need help, see

Remember to check with your teacher when your study plan is ready.

Try to finish your study by

Turn in the finished work to

GENERAL
Find Out About

Teacher Information

Grades 3-6; for one to four students.

Time: Allow 5 periods to write the plan. The student's plan should include his own estimate of the time when he will finish his study.

Assignment: This study may be done more than one time, if the student uses a different topic each time. Be sure to check whether the student is to do the plan or to carry out his study.

IMC Information

Study: Cover and 2 pages.

Consumables: Checklist for library research (available from IMC); Preparing a Bibliography (available from IMC).

Additional material: District-made tape cassette.

Processing: Catalog tape cassette into the library.

Rev. 5/76

Independent Curriculum Enrichment Studies

GENERAL

This study is for

Date to begin is

Your study will be Ideas for Learning Centers.

- Look through the book to find a project you can do. Some projects call for partners. Some call for special supplies that your teacher may not have. Be sure you can get everything you need before you start a project. Write down the project you are working on under "Work Done" on the back of this sheet.
- Choose a learning center that you think your class would like to work on. Be sure you can get all the supplies you will need. Get your teacher's OK. Then make up the learning center. If you need to, get a ditto master and learn how to make it up so that there will be enough worksheets for everyone. Write what you do under "Work Done".

Materials you will need are

**your copy of this contract--Take one from the ICES file.
**the book Ideas for Learning Centers. You will find it in the Media Resource Center under the call number 793.7-M.
**other supplies as required--Be sure you can get all the supplies you will need before you begin to work on your project.

The work you turn in will be whatever your project tells you to do...or the learning center for your classroom.

When you need help, see

Try to finish your study by

Turn in the finished work to

GENERAL
Ideas for Learning Centers

Teacher Information

Grades 3-5; for one or two students (some activities call for partners)

Time: two to four periods for each project, although some could be extended

Assignment: Assign one project at a time. There are 52 projects in the book, covering most curriculum areas. While not all 52 will be possible, because of supplies needed, or of interest, this study could be assigned a number of times. Be sure to indicate which assignment you want to give by checking one of the two boxes on the student contract.

IMC Information

Commercial Material: Book available from Lear Siegler/Fearon, 6 Davis Drive, Belmont, CA 94002 for $6.25.

by Elaine Moore

Processing: Catalog into the library.

3/75

Independent Curriculum Enrichment Studies

GENERAL

This study is for

Date to begin is

Your study will be Mind Expanders.

You will choose ____ card(s) in the ______________ category. Think about the supplies needed and be sure you will be able to get them before you begin to work. Should you choose a card that asks you to work with friends, check with your teacher before you get them started. Do not remove the card you are working on from the set; copy any information you think you will need. Put the numbers of the cards you work on under "Work Done" on the back of your copy of this contract.

Materials you will need are

--your copy of this contract...You will find it in the ICES file.
--The Mind Expanders task cards...You will find them in the Media Resource Center under the call number KS-153.4-M.
--pencil and paper or other supplies as needed to do the card... Be sure you will be able to get all supplies before you begin.

The work you turn in will be whatever activity the card tells you to do. Answer cards to the math puzzles have been removed; your teacher has the answers.

When you need help, see

Try to finish your study by

Turn in the finished work to

GENERAL
Mind Expanders

Teacher Information

Grades 4-6; for one student (However, a few cards ask the student to find one or more friends to work with)

Time: one period or more, depending upon the card chosen. Perhaps the target date should be set after the student has chosen his card or group of cards to work on.

Assignment: Usually, each card is an independent project and one card should be assigned at a time. However, all nine math puzzles might be assigned as a single unit. You may want to specify a particular category. This set of task cards may be assigned more than once. Following are the categories of cards and the number of activities available in each:

Math (puzzles)	9
Creative writing	16
Art	15
Social studies	14
Poetry & book reports	5
Science	10

Be sure to fill in the instructions to the student.

IMC Information

Additional teacher information: Answer sheet (2 sides)

Commercial material: Task cards available from Educational Insights, Inc., 211 South Hindry Ave., Inglewood, CA 90301 at $4.95.

Processing: Remove "To the Teacher" card and Math cards 10 through 18. Insert tab dividers as instructed. Process for the library.

3/75

MIND EXPANDERS
Answer sheet

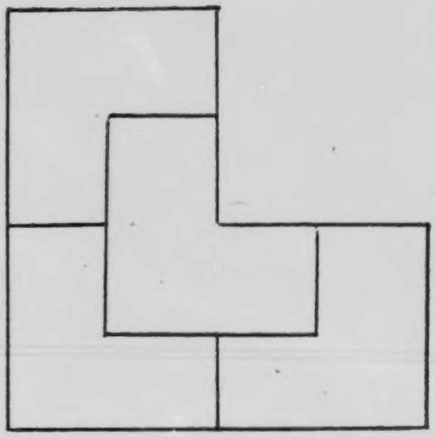
Math 10

ANSWER TO
MATH MIND BLOWER #1 (CANNIBALS)

1. The cannibal who can row ("Cannibal R") takes over one cannibal and leaves him.
2. He then takes another cannibal over and leaves him with the first.
3. When "Cannibal R" returns with the boat, two missionaries go over, one of them remaining on the other side while the rowing missionary returns bringing a cannibal with him.
4. One missionary then goes over with "Cannibal R."
5. A missionary then returns with a cannibal, but leaves "Cannibal R" on the other side.
6. The two missionaries then cross over and give the boat to "Cannibal R," who makes two other trips over for the cannibals, bringing one at a time.

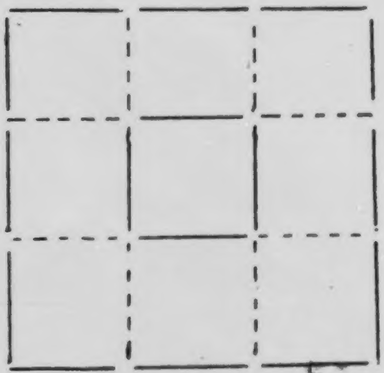
Math 11

ANSWER TO MATH MIND BLOWER #2 (FORMATIONS)



Math 12

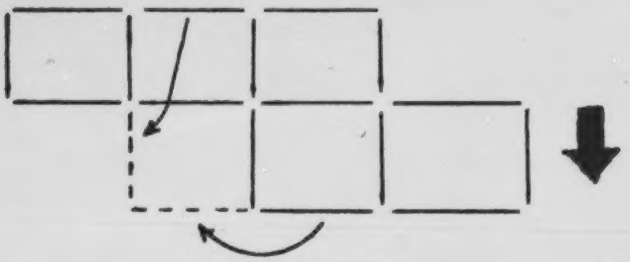
ANSWER TO MATH MIND BLOWER #3 (TOOTHPICKS)

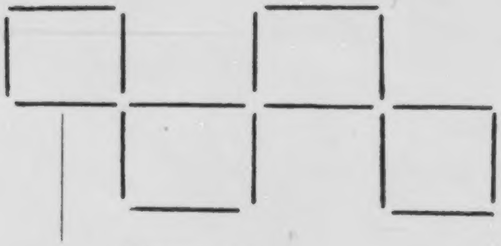


ANSWER TO MATH MIND BLOWER #4 (ROPE LADDER)

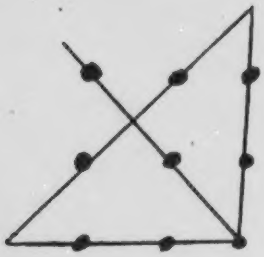
None of the rungs would be under water. Ship and ladder both rise with the tide.

ANSWER TO MATH MIND BLOWER #5 (PICK-UP STICKS)



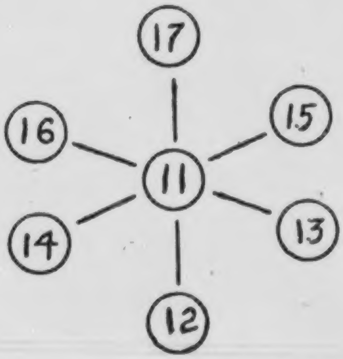


ANSWER TO MATH MIND BLOWER #6 (SEGMENTS)



ANSWER TO MATH MIND BLOWER #9 (WHEEL OF NUMBERS)

(there are many other solutions)



ANSWER TO MATH MIND BLOWER #7 (TRIANGLE COUNT)

Twenty-seven triangles

ANSWER TO MATH MIND BLOWER #8 (NUMBERS)

The trick is to use Roman Numerals; from XXIX take I and leave XXX.

Independent Curriculum Enrichment Studies

GENERAL

This study is for

Date to begin is

Your study will be A Student Guide to ICES

This guide is an introduction to the ICES program for students who have not before done an ICES study. It tells what the ICES program is and how the program works. It can also be used as a handy reference along with the first ICES study or two that a student chooses.

Materials you will need are

- a copy of A Student Guide to ICES...Take one from the ICES file.
- the tape (if desired)...You will find it under the call number RT-371.3-S.
- an ICES study of your choice after you have read the guide.
- a student contract for the study you have chosen.
- the materials listed on your contract.

The work you turn in will be

the work required for the study you have chosen.

When you need help, see

Try to finish your study by

Turn in the finished work to

GENERAL

A Student Guide to ICES

Teacher Information

Grades 3-6; for one student if the written guide is used. If the tape is used up to 8 students with headphones can utilize it.

Time: one period - A student may also be able to choose his initial ICES study and get started on it during the same period.

IMC Information

Study: Cover and 3 pages.

Additional material: District made tape.

Processing: Catalog tape into the library.

12/76

Independent Curriculum Enrichment Studies

HEALTH

This study is for

Date to begin is

Your study will be Blood and Guts; A Working Guide to Your Own Insides
by Linda Allison

A FUN way to learn all about the parts of your body. You may read the entire book or only those sections which interest you. You will do at least three interesting activities from the book such as making a plaster cast of your teeth, tying a bone in a knot, testing your lung capacity, dissecting an animal eye or chicken leg or testing your peripheral vision. You will describe the results of at least three of your activities and tell which you enjoyed most and WHY you did. If a group of students work together on this study a presentation to the class can be planned to share your activity results.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**a copy of the book Blood and Guts...You will find it in the Media Resource Center under the call number 612-A.
**paper and pencil.
**other materials as required for the activities you choose. Discuss where to get these with your teacher or MGM aide.

The work you turn in will be the written descriptions of your activities. List below at least three activities you have chosen and the pages of the book on which they are found.

1. ______________________________
2. ______________________________
3. ______________________________

When you need help, see

Try to finish your study by

Turn in the finished work to

HEALTH
Blood and Guts by Linda Allison

Teacher Information

Grades 4-6; for 1-5 students.

Time: 5 to 10 or more periods depending on the activities the student has chosen.

Assignment: This is a good study for a small group of students. They can choose different activities and share their results with each other, or plan a presentation for the class.

IMC Information

Study: Cover and 1 page.

Commercial material: The book from Little, Brown & Co., 34 Beacon St., Boston, MA 02114, at $6.95. Also available in paperback at $3.95.

Processing: Catalog book into library.

6/78

Independent Curriculum Enrichment Studies

HEALTH

This study is for

Date to begin is

Your study will be Food Groups.

What are the four main food groups? How can you plan a balanced meal? This study will teach you the answers to those questions.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the Food Groups study...Check one out from the ICES file.

**four boxes, one for each food group (if you do not have boxes, you might divide a large sheet of paper into four quarters).

**four pieces of construction paper, some old magazines, scissors, and paste.

The work you turn in will be a booklet with a title page, and one page showing a good breakfast, one showing a good lunch, and one showing a good dinner. Your booklet may be called "Good Eating" or "Food Groups", or any other title you may want to use.

When you need help, see

Try to finish your study by

Turn in the finished work to

HEALTH
Food Groups

Teacher Information

Grades: 1-2; for one or two students.

Time: 2 periods.

IMC Information

Study: Cover and 2 pages.

Rev. 4/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be All About Me

A set of 44 cards, each of which gives you a task to do...... something to write or something to draw. This study has been very popular with second and third graders who have tried it. You will keep a record of which cards you have completed on a Reading Record Card.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a set of All About Me cards...You will find these in the Media Resource Center under the call number KS-808-A.
**paper.
**pencil.
**crayons.
**a Reading Record Card...Take one from the ICES file.

The work you turn in will be

all of the work you have done which the All About Me cards told you to do.

your Reading Record Card.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

All About Me by Frank Schaffer

Teacher Information

Grades 2-3; for 1 (or a small group working together).

Time: 20 or more periods.

IMC Information

Consumable: Reading Record Card

Commercial material: All About Me Task Cards from Frank Schaffer Publications, Inc., 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274 at $4.95.

Processing: Remove title and name cards. Xerox Reading Record Card two to a page for consumables. Catalog card set into library.

6/78

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Being Me.

You will write in this workbook from time to time and when it is finished share it with your teacher. You will probably be doing other ICES studies during the same weeks that you are writing in Being Me.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a booklet...Take one from the ICES file.

**pencil, crayons, etc.

The work you turn in will be your completed book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SELF-DEVELOPMENT
Being Me

Teacher Information

Grades: 4-6; for one student.

Time: This is a long range project to be worked on through the term interspersed with other studies. It would be possible for the booklet to be carried forward into the subsequent school year.

Assignment: The book need not be done in sequence. A student should have other studies under way while he is continuing with this study.

IMC Information

Commercial material: Workbooks from SRA, 259 East Erie Street, Chicago, Illinois, 60611, at $13.75 per package of 25.

Processing: Send the workbooks directly to the school to be filed in the ICES file.

Rev. 4/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Boggie

Can you find the hidden words within the given time limits? Find one or more classmates (up to 6) who would also like to try, and FIND OUT!

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a set of BOGGLE...Check it out from the Media Resource Center. It will be found under the call number GA-428-G.

**pencil and paper to record your scores.

The work you turn in will be

☒ a record of your hidden words and your scores.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Boggle

Teacher Information

Grades 2-6; for one to six students.

Time: One period is adequate for the completion of a game.

Assignment: Be sure the students read the directions completely before starting.

IMC Information

Commercial material: Boggle, a Parker Brothers game is available from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518, at $5.75.

Processing: Catalog set into library.

8/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Comprehension and Vocabulary Development, Packet F.

You will figure out the answers to 30 cards. Do them in order. Write the answer to each card on your own paper, not on the cards. Check each card as soon as you have finished it; the answers are on the back. If your answer is wrong, figure out why and then cross out your old answer and write in the new one. Or if you cannot figure out why, see your teacher. Sometimes you may have a good reason for a different answer.

Materials you will need are

- **your copy of this contract....Take one from the ICES file.
- **the cards....You will find the packet in the Media Resource Center under the call number KS-428-C.
- **pen or pencil and paper....Remember, write on your own paper, not on the cards.

The work you turn in will be your recorded answers.

Of course, you might try just copying the answers. Or correcting an answer without understanding it. But, if you do that, you will not learn very much, except how to copy!

When you need help, see

Try to finish your study by

If you need a change after doing a number of cards, see your teacher.

Turn in the finished work to

LANGUAGE ARTS
Comprehension and Vocabulary Development, Packet F.

Teacher Information

Grades 5 - 6; for one or two students.

Time: 5 to 10 periods.

Assignment: There are 30 cards; you may want to change the contract to cover only 10 or 15 cards at a time. Answers are on the back of each card.

IMC Information

Commercial material: Card set from Instructional Fair, Inc., 4158 Lake Michigan Dr., Grand Rapids, Mi. 49504 at $2.50 each. Or Teachers Exchange, 600 - 35th Street, San Francisco, Ca 94121.

Processing: Catalog card set into the library.

3/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Creative Writing Using Both Sides of the Brain

In this study you will learn ways to use both sides of your brain to create.

Materials you will need are

- ** A copy of this contract...Take one from the ICES file.
- ** A copy of the study... Find it in the ICES file and check it out from the Media Resource Center.
- ** Some thinking time
- ** Paper and pencil

The work you turn in will be

- ☒ Your rough draft copy
- ☒ Your finished copy of your creation

When you need help, see

Try to finish your study by

Turn in the finished work to

Language Arts

Creative Writing Using Both Sides of the Brain

Teacher Information

Grades: 3 - 6 ; one student

Time: 2 to 4 periods

IMC Information

Study; Cover and 2 pages

3/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Descriptive Writing.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**your workbook...Take one from the ICES file.

**the tape on descriptive writing from the Expressive Writing box. You will find the set in the Media Resource Center under the call number RT-808-E.

**pen or pencil.

ASK YOUR TEACHER WHETHER YOU SHOULD WRITE IN THE BOOK OR ON YOUR OWN PAPER.

The work you turn in will be

(1) your completed answers to the workbook, and,

(2) a written description of a subject you choose.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Descriptive Writing

Teacher Information

Grades 4-6; one student

Time: 3 to 4 periods

Assignment: This unit is intended for a student who already:

1. knows the five senses and has a basic understanding of how they are used in observing different things in the world around him.
2. understands what an adjective is and its function in a sentence.
3. is able to write a coherent and well-structured sentence.

A follow-up evaluation test is available in the teacher's guide for Expressive Writing; answers are on the back of each page.

IMC Information

Commercial material: Expressive Writing kit available from Knowledge Aid, 6633 West Howard Street, Niles, IL 60648 at $79.95. Descriptive Writing workbook from same source at $2.50 (per package of 10; minimum order of 30.)

Processing: Catalog tape recordings and teacher's guide into the library. Student workbooks are to be filed alphabetically by title in the ICES file; they are intended to be consumable, but is is possible for students to work on their own paper if desired.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Dill Pickles for the King's Chiffon Pie.

Materials you will need are

- **your copy of this contract--Take one from the ICES file.
- **the "Dill Pickles" study--Check it out from the ICES file.
- **The activities require various supplies. Be sure you will be able to get everything you need before you start your activity.
- **pencil or pen and paper

The work you turn in will be your creative writing-- either a fantasy, a newspaper article or a letter; also one activity.

When you need help, see

Be sure to confer with a teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Dill Pickles for the King's Chiffon Pie

Teacher Information

Grades 4-6; for one student
Time: allow two periods for basic work; one to three additional periods for activity
Assignment: The student should check with a teacher before he begins to work on his selected activity.

IMC Information

Study: cover and 5 pages

4/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be The Flying YOU!

A strange and startling thing happens to you on the way to school which changes your life completely. You will write of your adventures with the new-found power given to you by the WORLD BIRD COUNCIL.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.
**a copy of this study . . . You may check it out from the ICES file.
**lined paper
**pencil
**drawing paper and crayons or paints if you choose to illustrate your adventure.

The work you turn in will be

☒ your written adventures
☐ your illustrations if you choose to do them.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

The Flying YOU

Teacher Information

Grades 3-5 for one student

Time: 2 periods to an entire year should the student decide to write a series of adventures and make a book.

IMC Information

Cover and 2 pages.

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Following Directions - Read, Think, Do

A book of FUN activities. Each activity has a separate set of directions which you must follow very carefully. All of your work will be done on separate sheets of paper. You may choose to do just certain pages or the whole book.

Materials you will need are

*your copy of the contract...Take one from the ICES file.

**a copy of Following Directions - Read, Think, Do.. Check it out from the Media Resource Center. You will find it under the call number 153.4-V.

**pencil and paper.

**crayons.

The work you turn in will be

☐ your work for pages numbers ______________________

____

☐ your work for the whole book

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Following Directions -
Read, Think, Do.

Teacher Information

Grades 1-3; for one student.

Time: One to many periods depending on how many pages are chosen.

Assignment: Not all pages would be appropriate for the younger students. Select pages accordingly. These activities are a good indication of how well the student can follow specific directions.

IMC Information

Commercial material: Teaching Stuff book Following Directions - Read, Think, Do is available from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518, at $4.95.

Processing: Catalog book into library.

9/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Fun With Language

Do you like to use your imagination, use words in interesting ways, do fantastic, fabulous and frivolous activities? Then this study is for YOU! You will do the following:

Metaphors - What do they mean?	A "Nice" Story
On The Tube	How-To-Do-It
Try These Analogies	Last Lines
Pet Sticks	

Things you will need are

- **your copy of this contract...Take these from the ICES file.
- **a copy of this study...Check one out from the ICES file.
- **pencil
- **lined paper
- **your fantastic, fabulous and frivolous (do you know what these words mean?) imagination.
- **your very best handwriting.

The work you turn in will be

☒ your work for the seven activities (Don't forget your pet sticks!).

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Fun With Language

Teacher Information

Grades 3-6 for one student

Time: Three or more periods.

Assignment: Students who really enjoy this study may be directed to the Reading, Thinking and Reasoning Skills Program in the Thinking Skills section. These booklets contain lots of FUN TO DO, instructive activities.

IMC Information

Cover and 9 pages.

6/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Fun with Picture Crosswords.

Choose ______ cards to work on. Write the number of each card you choose on the back of this contract. Do not write on the cards. See if there are copies in the ICES file of the cards you want.

If so, use one of each.

If not, ask your teacher to get copies for you.

Be sure to put all the cards back in the box as soon as you finish looking at them.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a Fun with Picture Crosswords score card. Take one from the ICES file. If you do more of these cards another time, use the same score card.
- **the Fun with Picture Crosswords card set. You will find it in the Media Resource Center under the call number KS-793.73-F. Remember: do not write on the cards.
- **a pencil and copies of the cards you choose.

The work you turn in will be your finished puzzles.

When you finish a card, find its number on your score card. Color in that part of the picture. Show your score card to your teacher when you turn in your work.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Fun with Picture Crosswords

Teacher Information

Grades 1-3; one student

Time: A student will complete one or two puzzles in a period.

Assignment: There are 44 crossword puzzles in the set. For each word there are two clues: a picture and the word misspelled by the addition of an extra letter.

Fill in the number of cards the pupil should do; six cards would probably be a good initial assignment. The study can be repeated until all 44 cards have been done; the same score card should be retained and used if the study is assigned more than once. Copies of the cards may be ordered from IMC if the supply in the ICES file has been exhausted.

IMC Information

Consumables: Fun with Picture Crosswords score card (run two per sheet of paper and cut in half.)

Schools will order replacement copies of cards (run on paper) as needed; send 10 copies of any card ordered, along with note asking the ICES person to place extras in the envelope in the ICES file. (One set of cards is kept at IMC as masters for zeroxing.)

Commercial material: Card set available from The Wise Owl, Torrance, CA 90505 or from Teacher's Exchange of San Francisco, 600-35th Avenue, San Francisco, CA 94121 at $4.95.

Processing: Remove teacher's introduction, ruled card and score card. Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Grow in Word Power

Do you think you are pretty good with words? Try these word games and activities and find out. You may find a dictionary quite a help on some of these. By the time you finish this study you will have GROWN IN WORD POWER!

Be sure to put all your answers on separate sheets. Do not write in the book.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the book Grow in Word Power...Check it out of the Media Resource Center. You will find it under the call number 428.1-M.
- **a dictionary if you wish.
- **pencil and paper.

The work you turn in will be

☒ your answers to the activities you choose

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Grow in Word Power

Teacher Information

Grades 5 and 6; for one student.

Time: Varies greatly depending on number of games and activities chosen.

Assignment: Most of these exercises are limited to cognition and memory. Some require the higher skill of evaluation.

IMC Information

Commercial material: Book Grow in Word Power from Reader's Digest Services, Inc., Educational Division, Pleasantville, N.Y., 10570, at $1.99. Also available from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518, at the same price.

Processing: Catalog book into library.

9/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Homonym Concentration Game.

This is a new game invented by Mr. Distefano, a teacher at Montecito School in Lafayette. Play the game ____ time(s). Each time you start a new game, be sure you show that on the back of this contract sheet under "Work Done." Write down the name of the person or persons with whom you play. When the game is over, record who won.

Materials you will need are

**your copy of this contract--Take one from the ICES file.
**the Homonym Concentration Game--You will find it in the Media Resource Center under the call number GA-428-H.
**paper and pencil OR about 50 3"x5" cards.

The work you turn in will be your contract sheet showing the results of your games and one of the following:

⬡ a piece of paper on which you have listed 3 new pairs of homonyms. After each homonym, write a sentence in which you use it correctly. Be sure the other homonym could not also be used correctly in the same sentence!

⬡ a new homonym concentration game for your Media Resource Center. Make 23 new homonym pairs on 3x5 cards to make the new game.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Homonym Concentration Game

Teacher Information

Grades 3-5; for two to four students
Time: A single game plus the homonym list or new game will require about 2 periods. Add additional time for less than four players or for more than one game.
Assignment: Be sure to indicate how many times the student should play the game. Also, check which assignment the student is to turn in. If a student does a particularly good new homonym game, you may want to send it to the ICES staff person for possible duplication for other schools as a new item in the ICES program.

List of homonym pairs in this game:

break/brake
berry/bury
bare/bear
bore/boar

eight/ate

fair/fare

here/hear
heard/herd

knew/no
knight/night
knew/new

mane/main
meet/meat
male/mail

ore/oar

pair/pear

sea/see
sail/sale

there/their
tee/tea
through/threw

won/one
whole/hole

IMC Information

Processing: Make the game by lettering each of the above 46 words on a separate 3x5 card. For each set make a rules card (see below). Catalog the game into the library.

HOMONYM CONCENTRATION GAME
by Michael Distefano
Lafayette School District, 1975

RULES: Mix the 46 cards and lay them all face down in a scattered arrangement. First player turns up two cards. If they are homonyms, he defines them and takes up the cards. If they are not homonyms, he turns them face down again in the same location. Each student in turn does the same. Game ends when all pairs have been picked. Winner is person with the most pairs.

4/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be How to Write a Bibliography

This study calls attention to the purpose of a bibliography and gives directions to the student for writing a bibliography of his own for classroom research projects. You will read the study doing four exercises in writing different kinds of bibliographies.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**paper
**pencil
**the study will direct you to locate certain other materials in the Media Resource Center.

The work you turn in will be your four bibliography writing exercises.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

How to write a Bibliography

Teacher Information

Grades 4-6; for one student.

Time: One period.

Assignment: This study may be assigned to a student at any time. It may be particularly helpful at the time the student is undertaking a research project for which a bibliography is required. If a student after completing the study has later difficulties in writing a bibliography he should be referred back to review this study.

Note: This study is not intended to tap an MGM student's higher level thinking skills but rather as an instructional aid to be used in the preparation of an individual research study.

IMC Information

Study: Cover and 6 pages.

9/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Imaginanimoddities.

You will invent a new animal by combining two others. You will become the WORLD'S ONLY EXPERT on that animal. By the time you finish you will draw a picture, write a description, tell about the life your animal leads, write an adventure story, make a model and above all HAVE FUN while doing it all.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.
**a copy of this study . . . It can be obtained from the ICES file.
**scratch paper
**12" x 18" drawing paper
**lined paper
**pencil
**crayons, colored pencils, watercolors or tempera
**clay, papier-mache or whatever other modeling material meets your needs.

The work you turn in will be

☐ your picture
☐ your description of your animal and the life it leads
☐ your adventure story
☐ your model

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

Imaginanimoddities

Teacher Information

Grades 3-6 for one to six students

Time: 10 or more periods

Assignments: A group of students could work together on this -- each doing their own animal or could even collaborate on one animal, pooling their thoughts and sharing in the work. Be sure to provide the opportunity for them to share their work with other students when they are finished. After all, how many IMAGINANIMODDITY MAKERS have you ever known?

IMC Information

Cover and 2 pages.

6/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Imagine and Write.

You will have a book of your own to write in.

☐ Book 3 = 3rd grade
☐ Book 4 = 4th grade
☐ Book 5 = 5th grade
☐ Book 6 = 6th grade

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **your copy of the workbook checked above...Take one from the ICES file. Show it to your teacher to be sure you have the right book.
- **pencil or pen.

The work you turn in will be your completed workbook.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Imagine and Write

Teacher Information

Grades 3-6; for one student.

Time: This is a long-range project to be worked on through the term, interspersed with other studies.

Assignment: Book 3 is intended for use in the third grade, book 4 in the fourth grade, and so on. The workbooks are consumable. Be sure to check which book the student is to work on.

IMC Information

Commercial material: Separate workbook for each grade from 3 through 6 from Xerox Education Publications, Education Center, Columbus, OH 43216, 45¢ each.

Processing: Do not catalog for library. Send directly to the schools to be filed in the ICES file.

Rev. 5/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Imagine That.

This set is made up of eight tape cassettes with worksheets. The worksheets are covered with plastic. You will write on your own paper. Do the tape or tapes that are checked. These tapes will give you ideas for writing imaginative stories.

☐ Making My Own Zoo (RT-808-M)
☐ A Story Ends Someplace (RT-808-S)
☐ Hilda The House (RT-808-H)
☐ I Am The King! I Am The Queen (RT-808-I)
☐ Oliver Opposite (RT-808-0)
☐ What If... (RT-808-W)
☐ Sound Out Your Own Stories (RT-808-S)
☐ My Strange Friend (RT-808-M)

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the tape cassette for the lesson you are going to do...You will find it in the Media Resource Center under the call number indicated above.
- **a worksheet covered with plastic...You will find it inside the box with the tape cassette.
- **pencil or pen and plain or lined paper.
- **tape player.

The work you turn in will be your written answers to the worksheets.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Imagine That

Teacher Information

Grades 1-3; for 1 to 5 students.

Time: Lesson times once the tape has begun are 35, 30, 25, 35, 20, 45, 25, and 30 minutes respectively.

Assignment: Be sure to check which tape or tapes the student is to complete. Teacher's guides are available in the Media Resource Center. Follow-up activities are suggested in the guide.

IMC Information

Commercial materials: Eight tape cassettes, numbers C-6201 through C-6208, from Coronet, 65 East South Water Street, Chicago, Illinois, 60601, $71.60. Additional worksheets available at $2.20 per package of 30.

Processing: Catalog tapes into the library. Staple one worksheet into teacher's guide, which should be filed separately in the library. Put 5 copies of worksheets in plastic sleeves. Remaining worksheets are to be sent to the school where they may be put in teacher's binders or kept in the ICES file as spare copies.

Rev. 5/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be The Language Scoop.

Choose _____ activities to do. Do your work on a separate piece of paper. Do not write on the activity pages. After you have completed the whole page, you may check your answers on the back. (Some activities do not have answers.) When you complete an activity, find its page number on your record sheet and color it in.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of The Language Scoop record sheet from the ICES file. Use the record sheet again if you do more activities.
- **The Language Scoop. You will find it in the Media Resource Center under the call number 793.7-S.
- **paper and pencil and any other materials mentioned in the activity. Be sure you can get all the materials you need before you begin to work.

The work you turn in will be your record sheet and your answers or projects for the activities you choose.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
The Language Scoop

Teacher Information

Grades 3-6; for one student

Time: Students will be able to finish most activities at the rate of three or four in a period; some activities require a period or two each.

Assignment: Indicate the number of activities to be completed. A reasonable first assignment would be five activities. This study may be assigned more than once until all activities are done. The same record slip should be retained if the study is repeated.

IMC Information

Consumable: Student record sheet (run two to a page and cut in half.)

Commercial material: The book is available from The Idea Factory, P.O. Box 3732, Granada Hills, CA 91344 at $5.95. Teachers are given permission to reproduce pages for use in their classrooms.

By Linda Schwartz

Processing: Catalog the book into the library. The school may wish to separate the pages and put them into plastic. If that is done, the card and pocket should be moved to the outside of the envelope in which the book is stored.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Letter Writing.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the two workbooks...Take them from the ICES file.
- **the two tapes on letter writing from the Expressive Writing box. You will find the set in the Media Resource Center under the call number RT-808-E.
- **pen or pencil.

ASK YOUR TEACHER WHETHER YOU SHOULD WRITE IN THE BOOK OR ON YOUR OWN PAPER.

The work you turn in will be

your completed answers to the workbooks.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Letter Writing

Teacher Information

Grades 4-5; one student

Time: 4 to 6 periods

Assignment: This unit is intended for a student who already:
1. has received or written a social or business letter.
2. understands that one main idea is contained in a paragraph.
3. can write a simple paragraph.
4. knows proper capitalization and punctuation of peoples' names, places, and titles.

A follow-up evaluation test is available in the teacher's guide for *Expressive Writing*; answers are on the back of each page.

IMC Information

Commercial material: *Expressive Writing* kit available from Knowledge Aid, 6633 West Howard Street, Niles, IL 60648 at $79.95. *Letter Writing* workbooks from same source at $2.50 (per package of 10; minimum order of 30.)

Processing: Catalog tape recordings and teacher's guide into the library. Student workbooks are to be filed alphabetically by title in the ICES file; they are intended to be consumable, but it is possible for students to work on their own paper if desired.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Listening Skills, Level C.

This set contains 8 tape cassettes with worksheets. Do the lesson or lessons checked. You will either write on a plastic sleeve, using a china marking pencil, or directly on a worksheet with a pen or pencil. Ask your teacher what you should do.

- ☐ Machines and their sounds (RT-153.4-M)
- ☐ Descriptive sounds and effects (RT-153.4-D)
- ☐ Words and their parts (RT-153.4-W)
- ☐ The miller, his son, and their donkey (RT-153.4-M)
- ☐ Selected short stories (RT-153.4-S)
- ☐ Selected poems (RT-153.4-S)
- ☐ The sound of a story (RT-153.4-S)
- ☐ Who, what, when, and where by ear (RT-153.4-W)

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**the tape for the lesson you are to do...You will find it in the Media Resource Center under the call number shown above.
**a worksheet covered with a plastic sleeve and a china marking pencil OR a worksheet that you may write on with a pen or pencil (ask your teacher what you should do).
**cassette tape player.

The work you turn in will be your answers to the questions on the worksheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Listening Skills, Level C

Teacher Information

Grades 1-3; for one to five students.

Time: Lesson times, once the tape has begun, are 15, 30, 30, 11, 30, 30, 30, and 40 minutes, respectively.

Assignment: Be sure to check which tape or tapes the student is to do. This series should be done in sequence. Be sure to tell the student whether he should use worksheet in a plastic cover with a china marking pencil or whether he may use worksheet as a consumable. Teacher's guides for the tapes are available in the Media Resource Center. The guides include follow-up activities.

IMC Information

Commercial material: 8 tape cassettes, nos. C-4113 through C-4120 from Coronet, 65 East South Water St., Chicago, Ill 60601, at $9.95 each. Additional worksheets available at $2.20 per package of 30.

Processing: Catalog tapes into library. Staple one worksheet into teacher's guide, which should be filed separately in the library. Put 5 copies of worksheet into plastic sleeves. Remaining worksheets are to be sent to the school, where they may be put into teacher's binders or kept in the ICES file as spare copies.

Rev. 5/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Making a Dictionary.

If you love to read books or just like words in general, you will probably enjoy this activity of making a short dictionary about some special subject of your choice. You will learn how professional "lexicographers" select words for dictionaries as well as learning about some of the problems they face.

When finished your teacher will want you to share your dictionary with your class.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **a copy of the work sheet for this study...Take one from the ICES file.
- **lined paper
- **pencil

The work you turn in will be

☒ your completed dictionary on a special subject of your choice.

☒ your completed work sheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Making a Dictionary

Teacher Information

Grades 5 and 6; for one student.

Time: 5 periods (or more depending on how many words the student wishes to include in his dictionary).

Assignment: This unit was originally written for older students, however, it shouldn't be too difficult for students who really enjoy language arts. When the student finishes his dictionary be sure to ask that it be shared with the class. You may wish the student to discuss some of the problems faced by the amateur lexicographer.

IMC Information:

Consumable: Work sheet consisting of 3 pages.

Cover and 9 pages.

Commercial material: Making a Dictionary, A Teaching Unit, free from Macmillan Publishing Co., Inc., 23 Orinda Way, Orinda, California, 94563.

9/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be My Day as a ______________.

This short study will give you an opportunity to strech your imagination a bit (or to just let it run wild). You will pretend that you are some commonplace object for a day. You will write about all the interesting, funny, happy, unhappy, dangerous or exciting adventures that you have during the day. A FUN STUDY!

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of this study...Check it out from the ICES file.
- **lined paper.
- **pencil.
- **crayons or other art materials for a picture showing part of your day.
- **drawing paper.

The work you turn in will be

- **your written work.
- ** your picture.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
My Day as a _______.

Teacher Information

Grades: 3-6; for one student.

Time: 1-2 periods.

IMC Information

Study: Cover and 2 pages.

3/78

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be News Capers

This study will give you a chance to explore a newspaper and find out the many kinds of information it contains. You will be asked to use the newspaper to locate certain kinds of information. You will also be asked to do many fun kinds of activities which are related to newspapers and their contents. You will be a detective, an author, artist, cartooner and reporter before you finish this study. You may choose to do the entire set of 43 cards or may select certain cards only. Be sure to write on your contract which cards you will do. You will keep track of which cards you have completed by coloring in one patch on the patchwork quilt of your News Capers Score Card.

Materials you will need are

*your copy of this contract...Take one from the ICES file.
**a set of News Capers cards...You will find it in the Media Resource Center under the call number KS-070-N.
**a copy of the News Capers Score Card...Get one from the ICES file.
**a newspaper
**drawing paper
**lined paper
**pencil

The work you turn in will be

☒ your work or answers for each News Capers card you do.

☐ I will do the entire set of News Capers cards.

☐ I will do the following cards (list numbers) ______________________________

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
News Capers

Teacher Information

Grades 4-6 for 1-3 students. While each student should write his own answers to the cards, students can profit from exploring the paper together and discussing the various parts of the paper as well as the meanings of some of the card assignments.

Time: one to many periods depending on the number of cards selected.

Answer Key:

5) a. BUSINESS OPPORTUNITIES; b. JOBS WANTED; c. HELP WANTED; d. USED CARS; e. PERSONALS; f. MISCELLANEOUS FOR SALE; g. HOUSE FOR SALE; h. LOST & FOUND

17) a. SPORTS; b. EDITORIAL; c. ASTROLOGY; d. WEATHER; e. LOST & FOUND; f. FASHIONS; g. COMICS; h. CLASSIFIED; i. FINANCIAL; j. TELEVISION; k. FILMS; l. THEATER

25) a, d, and e are facts; the others are opinions.

27) a. LOST, Female mixed German Shepard, black/tan/white; Please call. Reward! b. LOST Gray/white, Female Old English Sheepdog, Reward. c. Irish Setter pups, American Kennel Club, Male/Female, 15 weeks, reasonable, private party; d. House for Sale, 4 bedrooms, 3 baths, family room, 30' living room, beautiful kitchen, fireplace, 3 car garage, evening 345-6789

36) a. Sports; b. Political; c. Women; d. Music; e. TV-Radio; f. Religion; g. Movies; h. Weather

IMC Information

Consumables: News Capers Score Card. Run 2 to a sheet and cut in half. Schools will order replacement copies of cards (run on paper) as needed; send 10 copies of any card ordered, along with a note asking the ICES person to place extras in the envelope in the ICES file. (One set of cards is kept at IMC as masters for xeroxing.

Commercial material: Card set available from Wise Owl Publications, Los Angeles, California, 90028, or from Teacher's Exchange of San Francisco, 600 - 35th Avenue, San Francisco, California 94121 at $4.95.

Processing: Remove teachers introduction card, mini award card, score card and answer key. Catalog card set into library.

4/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be News Reporting.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**your workbook...Take one from the ICES file.

**the tape on news reporting from the Expressive Writing box. You will find the set in the Media Resource Center under the call number RT-808.E.

**pen or pencil.

ASK YOUR TEACHER WHETHER YOU SHOULD WRITE IN THE BOOK OR ON YOUR OWN PAPER.

The work you turn in will be

(1) your completed answers to the workbook, and

(2) a newspaper article or a radio or TV news report (to be given orally to the class) about an important event in your school or locality.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
News Reporting

Teacher Information

Grades: 5-6; one student

Time: 3-4 periods

Assignment: This unit is intended for a student who already:

1. is familiar with different types of news (international, local, school.)
2. has listened to a typical news broadcast.
3. has read straight news items in newspaper.
4. can distinguish between a direct and indirect quotation.
5. is able to write a direct and an indirect quotation.

A follow-up evaluation test is available in the teacher's guide for Expressive Writing; answers are on the back of each page.

IMC Information

Commercial material: Expressive Writing kit available from Knowledge Aid, 6633 West Howard Street, Niles, IL 60648 at $79.95. News reporting workbook from same source at $2.50 (per package of 10; minimum order is 30.)

Processing: Catalog tape recordings and teacher's guide into the library. Student workbooks are to be filed alphabetically by title in the ICES file; they are intended to be consumable, but it is possible for students to work on their own paper if desired.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be People Projects Set A by Merrill Harmin.

This is a set of 40 cards designed to help you understand yourself and others. They should help you become more skillful in solving everyday problems involving you and others.

Some of these are for one person to do by himself/herself. Others are for different numbers up to a small group of 6 or 7. You should just look over the cards until you find one you like and then meet with your teacher to agree on your contract.

If you later decide to do some of the other cards, mark their numbers on this contract also, rather than getting a new contract for each.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the set of People Projects Set A cards...You will find the packet in the Media Resource Center under the call number KS 153.4-H.

**materials vary from card to card...For some you will need a paper and pencil or crayons.

The work you turn in will be

☐ whatever card #________ asks you to do.
(Some cards do not require you to turn in anything but tell you to do certain activities.)

When you need help, see

Be sure to see your teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

People Projects Set A by Merrill Harmin

Teacher Information

Age Level: Set A has been shown to be most appropriate for children aged 9 to 11.

Time: 1 or more periods.

Assignment: Meet with the child to determine which card has been selected. Mark the number of the card on the front of the contract. PLEASE NOTE: Some cards do not require that any product be turned in.

IMC Information

Commercial material: Set of cards from Addison-Wesley Publishing Co., 2725 Sand Hill Road, Menlo Park, CA 94025 at $19.92.

Processing: Catalog into library.

7/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be

People Projects Set B by Merrill Harmin.

This is a set of 40 cards designed to help you understand yourself and others. They should help you become more skillful in solving everyday problems involving you and others.

Some of these are for one person to do by himself/herself. Others are for different numbers up to a small group of 6 or 7. You should just look over the cards until you find one you like and then meet with your teacher to agree on your contract.

If you later decide to do some of the other cards, mark their numbers on this contract also, rather than getting a new contract for each.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the set of People Projects Set B cards...You will find the packet in the Media Resource Center under the call number KS-153.4-H.
**materials vary from card to card...For some you will need a paper and pencil or crayons.

The work you turn in will be

☐ whatever card #________ asks you to do.
(Some cards do not require you to turn in anything but tell you to do certain activities.)

When you need help, see

Be sure to see your teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

People Projects Set B by Merrill Harmin

Teacher Information

Age Level: Set B has been shown to be most appropriate for children aged 10-12.

Time: 1 or more periods.

Assignment: Meet with the child to determine which card has been selected. Mark the number of the card on the front of the contract. PLEASE NOTE: Some cards do not require that any product be turned in.

IMC Information

Commercial material: Set of cards from Addison-Wesley Publishing Co., 2725 Sand Hill Road, Menlo Park, CA 94025, at $19.92.

Processing: Catalog into library.

7/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Poetry Patterns

Poetry can be written using many different patterns. This study will introduce you to a number of these. It gives you an opportunity to try and figure out some of the patterns for yourself. It also asks you to try writing your own poems using these patterns. Don't feel badly if you find yourself running into some trouble. It's not easy but it's lots of fun. When you are finished you will turn in the poems you have written.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**lined paper.
**drawing paper.
**a pencil and crayons.

The work you turn in will be

☒ The poems you have written.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Poetry Patterns

Teacher Information

Grades 5 or 6; for one or two students.

Time: One or two periods (or more if students really find this challenging).

Assignment: Children may enjoy working on this in pairs and sharing their poetry attempts with each other. Some children may find this study difficult or frustrating. If they show signs of frustration it might be wise to allow them to drop it after a reasonable time or to be satisfied with their poems of only a few of the simpler patterns.

SOI - this study is intended to stimulate divergent production on the part of the student.

IMC Information

Study: Cover and 4 pages.

8/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Poetry Potpourri

In this study there are fourteen different kinds of poetry activities. Discuss with your teacher or resource aide which of these would be good activities for YOU.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a packet containing the activity you choose...Get this from an envelope in the ICES file with the name of the activity you choose...All of these will be filed in one large envelope with the heading Poetry Potpourri Activities.

The work you turn in will be your work for the following:

(Check those you plan to do)

☐ Bonus Cards
☐ Poem Cards
☐ Pull-a-Poem
☐ Mixed-up Lines
☐ Poetic Poetry
☐ Line by Line
☐ Found Poetry
☐ Following a Formula
☐ Poetry Potpourri
☐ Poetry Pathway
☐ Haiku
☐ Modern Mother Goose
☐ Triplet Triangle
☐ Poetic Tricks

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Poetry Potpourri

Teacher Information

Grades 2-4; for two or three students.

Time: One to six periods.

Assignment: With the student discuss and select which activities are appropriate for him and have him check these on the front of his contract. Materials needed for each activity will be found in an envelope labeled with the name of the activity in the ICES file under Poetry Potpourri Activities. Directions are included in the envelope in most cases. For your use a Table of Contents and Teachers Guide are included here.

Table of Contents

8 Printed Activity Sheets

Bonus Cards (Using words creatively with Foldout Game Board)
Poem Cards (Matching poems to pictures with Foldout Game Board)
Pull-a-Poem (Simple poem writing by manipulating ends of lines)
Mixed-up Lines (Building poems by arranging one-line sentence cards)
Poetic Puppetry (Dramatizing poetry using puppets)
Line-by-Line (Writing poems by using a simple theme for every line)
Found Poetry (Rewriting advertisements in poetic form)
Follow a Formula (Writing poems following a simple formula)

A Motivating Foldout Poster

Poetry Potpourri (An activity combining action pictures and poetry)

A Foldout Game Board

Poetry Pathway (Introducing poetry and practicing basic skills used in creating poems)

4 Duplicating Masters

Haiku (Making a Haiku booklet and writing Haiku)
Modern Mother Goose (Rewriting Mother Goose Rhymes)
Triplet Triangles (Learning about triplet form)
Poetic Tricks (Practicing skills used in poetry writing)

IMC Information

Consumables: Haiku, Modern Mother Goose, Triplet Triangles and Poetic Tricks

Additional Teacher Information: Teacher's guide on page immediately following Teacher's Sheet.

Commercial Materials: Poetry Potpourri Learning Center Kit No. 2265 from Instructo is available from Warren's Educational Supplies, 1000 Detroit Ave., Concord, CA 94519, at $5.95.

Processing: Dry mount pages on cardboard. Cut out cards, puppets and game pieces as directed in booklet. Place game boards and posters in separate envelopes. Place all pieces for each game activity in a single small envelope labled appropriately with the name of that activity. All of these should then be placed in one large envelope labled Poetry Potpourri Activities. Remove duplicating masters (pages 11-14). Run masters for ICES file. Place in envelopes. Retain duplicating masters at IMC.

TEACHER'S ASSIGNMENT GUIDE p.1

Poetry Potpourri

Foldout Poster: Poetry Potpourri (page 9)

Hang the poster on the bulletin board as both motivation for the center and as an introductory activity. Cut off the strip of picture cards from the poster board, mount and cut into individual cards. Children may copy these pictures and write a poem to go with them. To extend the activity, children may add their own poetry pictures to the center.

Foldout Game Board: Poetry Pathway (page 10)

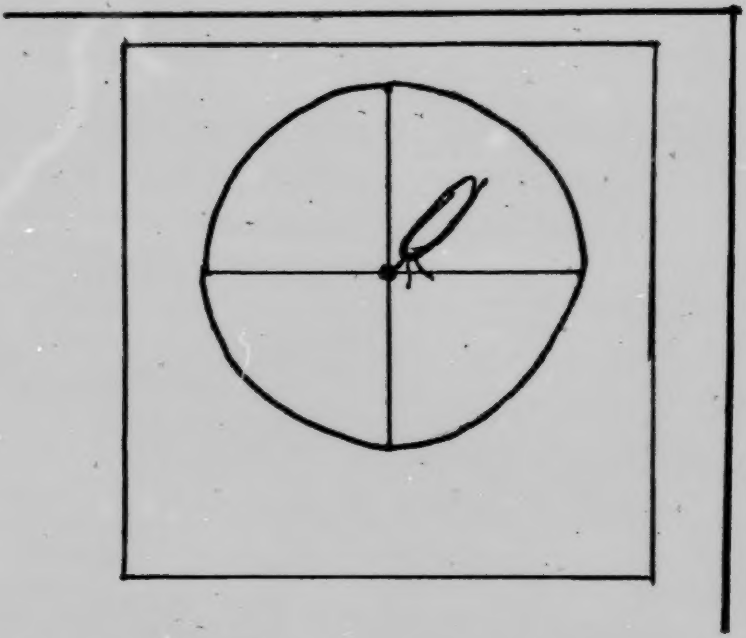
Basic instructions are printed on the game board. More detailed instructions (below) should be discussed with the children when the game is introduced.

a. Two or three children can play.
b. Bonus cards ask for answers. Because most require a creative response, no answers are given.
c. Poem Cards (to be matched with pictures on the board) are coded with the same shoe shapes which appear near the corresponding pictures on the board.
d. Say-a Poem footprints do not have to be done if a child chooses not to say a poem.
e. All Bonus and Poem Cards are worth 5 points. Say-a-Poem footprints are worth ten.
f. Play continues until a player reaches 50 points.

Mount the game board on cardboard and complete the spinner according to the directions below.

a. Securely tie paperclip to a small piece of string.
b. Push string through spinner and tape at back. Allow ¼" of string to extend in front.
c. Flick paperclip to operate spinner.

Sample:



Any convenient items can be used as markers. The spinner on the board can be used to decide the playing order.

Poetry Potpourri

8 Printed Activity Sheets

Page

1. Bonus Cards: Follow the directions on this page to use with the game board on page 10. These cards and the Poem Cards on page 2 are to be mounted on different colored paper to enable you to differentiate between the cards when turned face down. Additional cards can be made according to the skill level of each class.
2. Poem Cards: Follow the directions on this page to use with the game board on page 10.
3. Pull-a-Poem: This manipulative activity gives a child a simple experience in finishing a poem. After working the Pull-a-Poem, some children might be able to make their own manipulatives.
4. Mixed-up Lines: After being mounted and cut apart, any number of these cards can be arranged in any order to form a poem. The child can put the poem on paper, add his own lines, and/or illustrate the poem.
5. Poetic Poetry: This page has the heads for two puppets and two copies of the poem "Two Little Sillies". The children can use the poem for choral reading with the puppets. The puppet heads should be mounted, cut out, and stapled into a tubular shape. The puppets can be placed on the children's middle three fingers. To extend this activity, the children can make puppets for their favorite poems.
6. Line-by-Line: This activity provides a variety of cards with simple themes to be used in writing poems. Directions appear on the page.
7. Found Poetry: This activity stimulates children to find ideas for poetry all around them-in magazines, books, newspapers, etc.
8. Follow a Formula: In this activity, children use a simple structure for writing poems while still having an opportunity for creative expression.

Duplicating Masters

Directions for the children appear on pages 12-14. These pages may be distributed as independent activities or used in conjunction with other classroom activities. To use page 11, after duplicating the page, cut along the dotted lines and staple into small booklets in which the children may write their Haiku. Some examples of Haiku should be read to the children and discussed before this activity is attempted. For beginners Haiku is difficult and variations on the form should be allowed.

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Rebuses, Signs and Symbols

Your teacher will help you select cards with "fun" activities which will make you think hard to discover new words from reading rebuses (pictures with word meanings), signs, and symbols. Remember not to write on the cards, but to write your answers on a sheet of lined paper which you should number like the cards. You will keep track of which cards you have done by coloring a sign on your score card for each card completed.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a Rebuses, Signs and Symbols score card...Take one from the ICES file.
**the set of cards...You will find it in the Media Resource Center under the call number KS-001.54-R.
**lined paper.
**pencil.

The work you turn in will be

☒ your answers to the cards which you have completed.

List here the numbers of the cards your teacher and you have chosen for you to do.

____

____

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Rebuses, Signs and Symbols

Teacher Information

Grades 2-4; for 1 student.

Time: A child will complete several cards per period.

Assignment: There are 44 cards. The level of difficulty of the cards varies greatly. The lower numbered cards are suitable for second graders; those in the higher numbers will be more suitable for third or even fourth graders. The teacher should assist the child in selecting those most appropriate. A very advanced first grader might be able to do the lowest numbered cards.

IMC Information

Consumables: Rebuses, Signs and Symbols score cards, (run two per sheet of paper and cut in half). Schools will order replacement copies of cards (run on paper) as needed; send 10 copies of any card ordered, along with note asking the ICES person to place extras in the envelope in the ICES file. (One set of cards is kept at IMC as masters for xeroxing.)

Commercial material: Card set available from the Wise Owl, Torrance, Calif. 90505, or from Teacher's Exchange of San Francisco, 600-35th Avenue, San Francisco, Calif. 94121, at $4.95.

Processing: Remove teacher's introduction, ruled card and score card. Catalog into the library.

8/77

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Reporting.

This study tells you how to find information, take notes and organize a report. As soon as you have finished this study, it would be a good idea to write a report on a topic that interests you, using the Find out About study.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**your workbook...Take one from the ICES file.

**the three tapes on reporting from the Expressive Writing box. You will find the set in the Media Resource Center under the call number RT-808-E.

**pen or pencil.

ASK YOUR TEACHER WHETHER YOU SHOULD WRITE IN THE BOOK OR ON YOUR OWN PAPER.

The work you turn in will be

your completed answers to the workbook.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Reporting

Teacher Information

Grades 5-6; one student

Time: 6-8 periods

Assignment: This unit is intended for a student who already:
1. is minimally familiar with an informative report.
2. has had experience using reference materials.
3. is minimally familiar with the purpose of note taking.
4. has been introduced to basic form for outline.
5. is familiar with Roman numerals.
6. is able to write a well-structured sentence.
7. understands purpose of a paragraph and can write a simple paragraph.

This study will be most effective if followed up by a project which calls for a written report. A follow-up evaluation test is available in the teacher's guide for Expressive Writing; answers are on the back of each page.

IMC Information

Commercial material: Expressive Writing kit available from Knowledge Aid, 6633 West Howard Street, Niles, IL 60648 at $79.95. Reporting workbooks from same source at $2.50 (per package of 10; minimum order is 30.)

Processing: Catalog tape recordings and teacher's guide into the library. Student workbooks are to be filed alphabetically by title in the ICES file; they are intended to be consumable, but it is possible for students to work on their own paper if desired.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Spotlight on Spelling Book 2

Do you like to have fun with words? Thirty-four FUN activities with spelling activities from "Fun Foods" to "Word Soup." Come on along and join in the

_ _ _!

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**copies of the spelling activities you have chosen to do...Get these from the ICES file.

**pencil.

The work you turn in will be

☐ your completed work for spelling activities ____________________ (list numbers of activities chosen)

____

____

☐ your completed work for the entire workbook (34 spelling activities)

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Spotlight on Spelling Book 2

Teacher Information

Grades 4 to 6; for one student.

Time: One to ten periods depending on the number of activities chosen.

TABLE OF CONTENTS

1. OVER LANDS AND SEAS
2. WORD BUILDERS
3. WORLD OF WORDS
4. PLURAL WHEEL
5. FUN FOODS
6. CHRISTMAS WORDS
7. VALENTINE VOCABULARY
8. WHICH WAY TO "SHUN"?
9. TENNIS FILL-IN
10. MISSING VOWELS
11. DOUBLE UP
12. TREE TIME
13. BATTER UP
14. CALENDAR CAPERS
15. POSITIVELY POSSESSIVE
16. DROPPED "E"
17. HAPPY NEW YEAR
18. WORDS OF THE SEASON
19. WORD HARVEST
20. PATHWAY OF PLURALS
21. DOUBLE O SEVEN
22. THERE, THEIR, THEY'RE
23. ADD IT UP
24. COMPOUND MATCH UP
25. LEFT-OUT CONSONANTS
26. SPELLING STUMPERS
27. ABBREVIATION HUNT
28. WINTER WORDLAND
29. SPELLING STAIRWAY
30. WORD WISE
31. "ANCE" OR "ENCE"?
32. F TO V?
33. EASTER PARADE
34. WORD SOUP

IMC Information

Additional Teacher Information: Answers to spelling activities.

Consumable: Spelling activity pages.

Commercial Material: Creative Teaching Press Spotlight on Spelling, Book 2 is available from Warren's Educational Supplies, 1000 Detroit Ave., Concord, CA 94518, at $3.95.

Processing: Copy Table of Contents onto Teacher's Sheet. Remove spelling activity pages from booklet. Xerox back to back (1&2, 3&4 etc.). Xerox four pages of answers back to back to immediately follow teacher's page. Catalog book into the library.

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ANSWERS — SPOTLIGHT ON SPELLING, BOOK TWO

1. Over Lands And Seas

Across

4. Mississippi
7. Amazon
10. Arctic
11. Atlantic
14. Asia
15. Europe
16. Congo
17. Mexico
18. Hudson

Down

1. Africa
2. Rio Grande
3. Indian
4. Missouri
5. Potomac
6. United States
8. Danube
9. Pacific
12. Nile
13. Colorado

2. Word Builders

1. cruelly
2. usually
3. really
4. loneliness
5. loveliness
6. retell
7. misspell
8. deform
9. owlish
10. careless
11. suddenness
12. plainness
13. replay
14. rearrange
15. redo

3. World of Words

1. patio
2. ravioli
3. spaghetti
4. amateur
5. aloha
6. amigo
7. chow mein
8. sauerkraut
9. weiner
10. bazaar
11. bronco
12. chauffeur
13. tortilla
14. rodeo
15. chop suey

4. Plural Wheel

1. radios
2. solos
3. buffalos
4. Eskimos
5. banjos
6. pianos
7. ratios
8. echoes
9. zeros
10. rodeos
11. cargoes
12. tobaccos
13. trios
14. heroes
15. potatoes
16. volcanoes
17. tomatoes
18. dominoes
19. tornadoes
20. torpedoes

5. Fun Foods

1. Pepsi
2. sundae
3. corndog
4. milkshake
5. pizza
6. hamburger
7. burrito
8. onion rings
9. French fries
10. hotdog
11. taco
12. Coca Cola
13. orange
14. cheeseburgers

6. Christmas Words

1. ornaments
2. mistletoe
3. packages
4. tinsel
5. carol
6. star
7. presents
8. icicles
9. decorations
10. Santa Claus
11. toys
12. trees

7. Valentine Vocabulary

1. love
2. cupid
3. fourteenth
4. parties
5. arrow
6. valentine
7. February
8. candy
9. heart
10. flowers

The message: I want you for a valentine.

8. Which Way to "Shun"?

1. nation
2. selection
3. collection
4. nomination
5. explosion
6. mission
7. television
8. possession
9. occasion
10. confusion
11. magician
12. musician
13. politician
14. physician
15. passion
16. motion

9. Tennis Fill-In

1. backhand
2. forehand
3. set
4. match
5. serve
6. volley
7. smash
8. let
9. ace
10. grip

Numbers one and two are interchangeable and numbers three and eight are interchangeable.

10. Missing Vowels

lion
monkey
tiger
elephant
giraffe
snake
zebra
bear
seal
moose
gorilla
kangaroo
ostrich
wolf
deer
rhinoceros
elk
hippopotamus
peacock
llama

11. Double Up

Hawaii
butter
feet
giraffe
Hawaiian
accept
barrel
arrive

Scrambled letters: ITEFICRR

Unscrambled word: TERRIFIC

12. Tree Time

oak
ash
elm
fir
pine
redwood
cedar
maple
birch
palm

13. Batter Up!

pitcher
homerun
strike
base
catcher
shortstop
bunt
bullpen
inning
team

14. Calendar Capers

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December

15. Positively Possessive

1. monkey's
2. pioneer's
3. soldier's
4. teenager's
5. turkeys'
6. tourists'
7. elephants'
8. motorcycles'
9. boys'
10. deer's
11. sheep's
12. boot's
13. children's
14. enemy's
15. butterflies'
16. records'

16. Dropped "E"

1. driver
2. roper
3. observing
4. paving
5. taped
6. hoping
7. eased
8. faked
9. improved
10. natural
11. amazed
12. lovable
13. enclosed

17. Happy New Year

1. January
2. resolution
3. party
4. football
5. parade
6. dance
7. confetti
8. whistles
9. celebration
10. balloons

ANSWERS - SPOTLIGHT ON SPELLING, BOOK TWO

18. Words of the Season

1. wreath
2. holly
3. ribbon
4. stocking
5. evergreen
6. angel
7. pudding
8. fruitcake
9. tinsel
10. garland
11. snow
12. candles

19. Word Harvest

1. harvest
2. pumpkin
3. school
4. corn
5. squash
6. football
7. frost
8. leaves
9. raking
10. Halloween
11. rallies
12. autumn

20. Pathway of Plurals

1. motors
2. bumpers
3. speedometers
4. tanks
5. seats
6. windshields
7. doors
8. mats
9. radios
10. heaters
11. keys
12. ignitions
13. wheels
14. belts
15. pipes
16. mufflers
17. radiators
18. guages
19. accelerators
20. brakes
21. headlights
22. gears
23. hubcaps
24. seatcovers
25. tires

21. Double O Seven

1. pool
2. fool
3. food
4. foot
5. hoot
6. hood
7. mood

22. There, Their, They're

There is my elephant.
They're watching my elephant.
Their elephant is pink and purple.
They're starting the circus now.

Put the elephants over **there**.
The elephants like **their** new home
They're planning to live **there**.
Their trainer says **they're** very smart.

23. Add It Up

1. forty
2. eleven
3. eight
4. ninety
5. thirteen
6. one
7. fourteen
8. three
9. eighteen
10. seven

24. Compound Match Up

1. baseball
2. something
3. foothill
4. counterattack
5. landslide
6. kneecap
7. pigtail
8. playground
9. bookcase
10. bandstand
11. arrowhead
12. daylight
13. crossroad
14. cowboy
15. cloudburst
16. clubhouse

25. Left Out Consonants

September 10

Dear Bill,

I believe that we have to tell people not to use certain consonants. Will you help me? You can be my campaign manager. We will begin work tomorrow.

Thank you!

Crazy

26. Spelling Stumpers

1. because
2. exercise
3. independent
4. surprise
5. doesn't
6. knowledge
7. trouble
8. anxious
9. medicine
10. probably

27. Abbreviation Hunt

1. St.
2. dept.
3. Ave.
4. oz.
5. lbs.
6. ft.
7. in.
8. yds.
9. tbs.
10. tsp.
11. apt.
12. adv.
13. adj.
14. avg.
15. eg.
16. no.
17. alt.
18. doz.
19. etc.
20. inc.

28. Winter Wordland

1. snowball
2. toboggan
3. skiing
4. cold
5. ice
6. snowflake
7. sleigh
8. snowman
9. mittens
10. skating

29. Spelling Stairway

Across

goat
boat
coat
foal
poor
heal
seam
tear
feet
roam
loom
soot
beam
seen

Down

oat
goal
boar
cool
foam
pear
heat
seem
team
foot
room
loan
see
be

30. Word Wise

1. happily
2. bountiful
3. carried
4. buried
5. babies
6. hurried
7. supplied
8. business
9. glorious
10. ladies
11. magnifies
12. worried
13. scurried
14. beautiful

31. "Ance" or "Ence"?

1. silence
2. residence
3. innocence
4. experience
5. guidance
6. confidence
7. absence
8. performance
9. insurance
10. inheritance
11. fragrance
12. endurance
13. alliance
14. acceptance

32. F To V?

1. calves
2. halves
3. leaves
4. thieves
5. wives
6. hives
7. reefs
8. chiefs
9. dwarfs
10. wharves
11. roofs
12. hoofs
13. lives
14. knives

33. Easter Parade

1. Easter
2. basket
3. eggs
4. dye
5. hunt
6. new
7. vacation
8. bunny
9. parade
10. grass
11. candy
12. Spring

34. Word Soup

carrots
beets
cauliflower
broccoli
peas
cucumber
chives
celery
potatoes
turnips
pepper
lettuce
spinach
hominy
parsnips
tomatoes

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Story Sparkers.

This box contains 50 black and white photos. They are idea cards for writing titles, paragraphs or longer stories or compositions. You will choose just one idea from each card. Your assignment is to do:

__________ Quick Sparks __________ Long Sparks

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Story Sparkers cards...You will find the set in the Media Resource Center under the call number KS-428-S.
- **paper and pen or pencil.

The work you turn in will be your written work. You will also turn in this contract sheet. On the back be sure to include the number of each card you use under "Work Done."

When you need help, see

Try to finish your study by

Turn in the finished work to

Teacher Information

Grades 5-6; for one student.

Time: 1/2 to 1 period per "Quick Spark"; 1 to 2 periods per "Long Spark."

Assignment: Write in the number of cards you want the student to use. Each card has both "Quick Sparks" and "Long Sparks" on the back. "Quick Sparks" call for picture titles and paragraphs. "Long Sparks" call for stories or essays.

IMC Information

Commercial material: The Story Sparkers cards are from Morrison School Supplies, 304 Industrial Way, San Carlos, CA 94070, at $4.95.

Processing: Remove the card "A Note for Teachers." Catalog the card set into the library.

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Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Story Starters, set 1: Intermediate.

Read the instruction card in the story starters box. Then choose one idea card and write a story using the picture situation and some of the vocabulary suggestions from the card. Be sure that your finished story is neat and readable.

Materials you will need are

*your copy of this contract. . .take one from the ICES file.

**the Story Starter cards...You will find them in the Media Resource Center under the call number KS-428-S.

**lined paper, drawing paper (optional)

The work you turn in will be

- ☒ A story using the idea on the card.
- ☐ An illustration of your story.
- ☐ A carefully revised version of your story ready to be posted on the bulletin board in your classroom or to be published in a class booklet or your school newsletter.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Story Starters, Set 1: Intermediate

Teacher Information

Grades 4-6; for one student

Time: 1 to 2 periods for a story, 1 additional period for an illustration or revision.

Assignment: This box contains 50 idea cards and an instruction card. Each idea card shows a picture, a plot situation and vocabulary suggestions for a story. This assignment may be repeated a number of times selecting a different card each time. Be sure to check either of the optional activities if you wish the student to do them.

IMC Information

Commercial material: Set of cards from Teacher's Exchange, 600-35th Avenue, San Francisco, CA 94121, at $4.95.

Processing: Catalog card set into the library.

3/76 Rev.

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Story Starters, Set 2: Primary.

Read the instruction card in the Story Starters Box. Then choose one idea card and write a story using the picture situation and some of the vocabulary suggestions from the card. Be sure that your finished story is neat and readable.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the Story Starter cards...You will find them in the Media Resource Center under the call number KS-428-S.

**lined paper, drawing paper (optional).

The work you turn in will be

☒ A story using the idea on the card.

☐ An illustration of your story.

☐ A carefully revised version of your story ready to be posted on the bulletin board in your classroom or to be published in a class booklet or your school newsletter.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Story Starters, Set 2: Primary

Teacher Information

Grades 2-3; for one student.

Time: 1-2 periods for a story, 1 additional period for an illustration or revision.

Assignment: This box contains 50 idea cards and an instruction card. Each idea card shows a picture, a plot situation and vocabulary suggestions for a story. This assignment may be repeated a number of times, selecting a different card each time. Be sure to check either of the optional activities if you wish the student to do them.

IMC Information

Commercial material: Set of cards from Teacher's Exchange, 600-35th Avenue, San Francisco, CA 94121, at $4.95.

Processing: Catalog card set into the library.

Rev. 5/76

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Story Writing.

Note: You should do the Descriptive Writing study before you do this one.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**your workbook...Take one from the ICES file.

**the two tapes on story writing from the Expressive Writing box. You will find the set in the Media Resource Center under the call number RT-808-E.

**pen or pencil.

ASK YOUR TEACHER WHETHER YOU SHOULD WRITE IN THE BOOK OR ON YOUR OWN PAPER.

The work you turn in will be

(1) your completed answers to the workbook, and,

(2) a story of your own, using all the hints you have learned from the tapes.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Story Writing

Teacher Information

Grades 4-6; one student

Time: 5 to 7 periods

Assignment: This unit is intended for a student who already:

1. has used the Descriptive Writing unit.
2. understands the distinction between a narrative and a description.
3. has had some previous experience writing short narratives.

A follow-up evaluation test is available in the teacher's guide for Expressive Writing; answers are on the back of each page.

IMC Information

Commercial material: Expressive Writing kit available from Knowledge Aid, 6633 West Howard Street, Niles, IL 60648 at $79.95. Story Writing workbooks from same source at $2.50 (per package of 10; minimum order of 30.)

Processing: Catalog tape recordings and teacher's guide into the library. Student workbooks are to be filed alphabetically by title in the ICES file; they are intended to be consumable, but is is possible for students to work on their own paper if desired.

8/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Syllable Puzzles.

You will work with a set of Syllable Puzzles Cards and a worksheet with a list of ten words to be divided. Your assignment is to pronounce each word on the worksheet and divide it as you think it should be divided. After you are satisfied that you have divided all the words correctly, take the Syllable Puzzles Cards and fit the pieces together to make each word. When you fit a word together, you will discover whether you divided your word correctly. Correct your answer if you have made a mistake.

After you have completed the worksheet and have shown it to your teacher, make up a set of five syllable puzzles of your own. Make one worksheet. Write each word on a piece of heavy paper and cut it into syllables.

Materials you will need are

**a copy of this contract. Take one from the ICES file.

**a Syllable Puzzles Worksheet. Take one from the ICES file.

**the set of the Syllable Puzzles Cards. You will find it in the ICES file.

**pencil, paper, scissors, and tagboard for making syllable puzzles. Be sure you can get all of the materials before you begin the study.

The work you turn in will be your completed worksheet with the correct answers, and a new puzzle set with worksheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Syllable Puzzles

Teacher Information

Grades 4-6; for one student.

Time: one or two periods.

Assignment: Answer key

1.	sulphur	sul-phur	6.	violence	vi-o-lence
2.	capable	ca-pa-ble	7.	unicorn	u-ni-corn
3.	adventure	ad-ven-ture	8.	triumphant	tri-um-phant
4.	annual	an-nu-al	9.	reservation	res-er-va-tion
5.	professional	pro-fes-sion-al	10.	tendency	ten-den-cy

IMC Information

Material: The ten words are printed on tagboard and each one is cut apart into syllables along irregular curved lines like a picture puzzle.

Consumable: Syllable Puzzles Worksheet.

Processing: A set of Syllable Puzzles Cards is in the ICES file at each school. The set is in an appropriately labelled manila envelope with a buff checkout card and pocket.

12/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be THE THING

You will create THE THING in your fantastically fertile and wild THINGIMAGINATION. You will create a word picture of THE THING as well as draw its picture and tell of its habits, behavior, likes and dislikes. You will select and do at least one THINGTIVITY.

Materials you will need are

**a copy of this contract...Take one from the ICES file.
**a copy of the study...You may check it out from the ICES file.
**a sheet of 12" x 18" drawing paper.
**lined paper.
**pencil.
**crayons, watercolors, tempera or a media of your choice.
**other materials as required for some of the THINGTIVITIES.

The work you turn in will be all of your THINGWORK.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
The Thing

Teacher Information

Grades 4-6; for one or more students.

Time: 10-12 or more periods.

Assignment: Encourage students to really spend some time thinking before rushing into this study in order that THEIR THING will be truly WILD and WONDERFUL.
This study is designed to stimulate the student, to utilize his divergent thinking skills.

IMC Information

Study: Cover and 2 pages.

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Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Underwater Fantasy

Using your ABLE AQUATIC IMAGINATION you will explore other mysteries of the deep drawing upon all your knowledge of what life is like or MIGHT be like below the rippling surface of the water.

Materials you will need are

- **your copy of this contract . . . Take this from the ICES file.
- **a copy of this study . . . Get one from the ICES file.
- **lined paper
- **drawing paper
- **pencil or watercolors
- **crayons
- **your ABLE AQUATIC IMAGINATION

The work you turn in will be

☐ The written and drawn work this study asks you to do.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Underwater Fantasy

Teacher Information

Grades 4-6 for one or more students. Students may work on this study together at the same time but each should respond independently to the seven tasks.

Time: 2 or more periods depending on the length of the students' answers to the seven tasks.

IMC Information

Cover and 6 pages

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Vocabulary Development by Forrest Dobbs

This study has 28 task cards. Each card lists five words in a particular category (Examples: Ghoulish Ghosties, Unusual Animals, Carnival Capers). For each card selected you will look up the words in Webster's Collegiate Dictionary or The World Book Dictionary, write a definition and phonetic spelling of the word, use each word in a sentence of your own to show that you understand it, and do one activity having to do with the category of words on that card. See your teacher and decide which cards you will do.

Materials you will need are

**you copy of this contract...Take one from the ICES file.
**the envelope of Vocabulary Development Task Cards...Obtain this from the ICES file.
**Webster's Collegiate Dictionary...You will find this in the Media Resource Center under the call number R-030-W. Or The World Book Dictionary...You will find this in the Media Resource Center under the call number R-423-W.
**lined paper and a pencil.

The work you turn in will be your answers and work for

task cards:

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10
☐ 11
☐ 12
☐ 13
☐ 14
☐ 15
☐ 16
☐ 17
☐ 18
☐ 19
☐ 20
☐ 21
☐ 22
☐ 23
☐ 24
☐ 25
☐ 26
☐ 27
☐ 28

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS

Vocabulary Development by Forrest Dobbs

Teacher Information

Grades 5 & 6; for one student.

Time: One or more periods depending on how many cards are assigned or selected.

Assignment: Be sure to mark on the front of the students contract which cards have been assigned or selected. Also make sure the student has access to a collegiate dictionary or a World Book Dictionary.

IMC Information

Processing: Run the task cards 2 to a sheet on 9x12 tagboard or colored bristolboard. Cut apart. Place the 28 task cards in an envelope labeled Vocabulary Development Task Cards. Make one set for each school to be placed in the ICES file.

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Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Vocabulary Workbooks 1-2.

On each page or two of the workbook you will play a game with the Mini Veri Tech. Read the instructions at the front of the workbook before you begin. Your assignment is:

☐ Vocabulary Workbook 1
☐ Vocabulary Workbook 2

Write down each page as you do it under "Work Done" on the back of this contract.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a Mini Veri Tech...You will find it filed under M in the ICES file.
- **the vocabulary workbook you are to do. You will find it in the Media Resource Center under the call number 428.4-H.

The work you turn in will be your copy of this contract showing the pages you did each day. Be ready to show a teacher how you did any of the puzzles he or she would like to see you make.

If you wish, you may try to make a new Mini Veri Tech puzzle.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Vocabulary Workbooks 1-2

Teacher Information

Grades 1-2; for one student.

Time: 5 to 10 periods per book.

Assignment: Check which book the student is to do. Workbook 1 includes letters, sounds, endings and picture and work matching. Workbook 2 includes vocabulary, sentence and story comprehension.

IMC Information

Commercial material: The Mini Veri Tech is from Educational Teaching Aids, 657 Oak Grove Plaza, Menlo Park, CA 94025, at $2.50 for vocabulary workbooks 1-2 and $3.65 for the Mini Veri Tech.

Processing: Catalog the workbooks into the library as a seven-volume set of books. On the front cover of each booklet print: The Mini Veri Tech is in the ICES file. Put the Mini Veri Tech in a manila envelope to go into the ICES file with checkout card and pocket; identify with copy number.

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be Vocabulary Workbooks 3-7.

On each page or two of the workbook you will play a game with the Veri Tech. Read the instructions at the front of the workbook before you begin. Your assignment is:

☐ Vocabulary Workbook 3
☐ Vocabulary Workbook 4
☐ Vocabulary Workbook 5
☐ Vocabulary Workbook 6
☐ Vocabulary Workbook 7

Write down each page as you do it under "Work Done" on the back of this contract.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a Veri Tech...You will find it filed under V in the ICES file.

**the vocabulary workbook you are to do. You will find it in the Media Resource Center under the call number 428.4-H.

The work you turn in will be your copy of this contract showing the pages you did each day. Be ready to show a teacher how you did any of the puzzles he or she would like to see you make.

If you wish, you may try to make a new Veri Tech puzzle.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
Vocabulary Workbooks 3-7

Teacher Information

Grades 2-4; for one student.

Time: 5 to 10 periods per book.

Assignment: Check which book the student is to do. Contents are as follows:

Workbook 3: Word meaning; beginning sounds; opposities; synonyms
Workbook 4: Word selection; sounds, vocabulary; phrases; opposities
Workbook 5: Sounds of words; the meaning of words; adverbs; phrases; idioms
Workbook 6: Sounds; meaning of words; choice of words
Workbook 7: Word endings, vocabulary, verb forms; similar words, opposities, homonyms

IMC Information

Commercial material: The Veri Tech is from Educational Teaching Aids, 657 Oak Grove Plaza, Menlo Park, CA 94025, at $6.25 for vocabulary workbooks 3-7 and $5.00 for the Veri Tech Senior.

Processing: Catalog the workbooks into the library as a seven-volume set of books. On the front cover of each booklet print: The Veri Tech is in the ICES file. Put the Veri Tech in a manila envelope to go into the ICES file with checkout card and pocket; identify with copy number.

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Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be What Would Happen If?

This is a set of 25 question cards. Each card has one question. Choose _____ cards and write your paragraphs or stories on a separate piece of paper.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **What Would Happen If? task cards...In the ICES file.
- **pencil or pen and paper.

The work you turn in will be

☐ At least one paragraph for each card.
☐ A full story about each card.

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
What Would Happen If?

Teacher Information

Grades 3-6; one student

Time: One period per card

Assignment: Be sure to fill in the number of cards to be done and check whether you want a full story or a paragraph in response.

IMC Information

Processing: The set of cards is duplicated for each school and put in a manila envelope for the ICES file. Provide a blue checkout card and pocket.

9/75

Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be The Word Bird

Do you like words? Do you want to increase your vocabulary? If so, The Word Bird is for YOU! A collection of thirty-eight word puzzles designed for WORD FREAKS. You may choose to do the entire set of word puzzles or just select several of them to do. You will write your answers to the puzzles on a separate sheet of lined paper.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the puzzle pages of The Word Bird you choose to do...Take them from the ICES file one at a time as you work on them.
**lined paper.
**pencil.

The work you turn in will be

☐ your completed puzzles for the whole Word Bird.

☐ your completed puzzles for pages ______________________
(list page numbers you choose to do)

When you need help, see

Try to finish your study by

Turn in the finished work to

LANGUAGE ARTS
The Word Bird

Teacher Information

Grades 4-5; for one student.

Time: One half to one period per puzzle.

Assignment: Help the student select those puzzles you and he think are appropriate for his ability. Have him list these pages on the front of his contract or check the entire Word Bird. A list of titles is provided here for your use. Answers can be found on the pages immediately following this teacher's sheet.

WHAT'S COOKING? 6
HAPPY HOUSE HUNTING 7
CALLING ALL BIRD WATCHERS 8
WHAT'S ON THE LINE? 9
"B" WORD PUZZLE 10
"D" WORD PUZZLE 11
"P" WORD PUZZLE 12
"S" WORD PUZZLE 13
ONE AWAY 14
ONE AWAY AGAIN 15
PICK A WORD 16
JUMBLED JOBS 17
FLIP-FLOPS 18
MORE FLIP-FLOPS 19
WHAT DO YOU "C"? 20
"O" SAY CAN YOU SEE? 21
WHAT WOULD YOU DO WITH? #1 22
WHAT WOULD YOU DO WITH? #2 23
WHAT WOULD YOU DO WITH? #3 24
WHAT WOULD YOU DO WITH? #4 25
TEACHER "T" 26
ROBOT "R" 27
MISTER "M" 28
LADY "L" 29
SPORT ABOUT 30
WHO WORKS WHERE? 31
WHERE WOULD YOU FIND? 32
MUSICAL CONSONANTS 33
PICK A PAIR 34
OPPOSITES ATTRACT 35
MATCH A SUFFIX 36
MATCH A "MENT" 37
INTERESTING "IN" 38
DISCOVERING "DIS" 39
PRESENTING "PRE" 40
UNDERSTANDING "UN" 41
LINK A VERB 42
ADJECTIVE HUNT 43

IMC Information

Additional Teacher Information: answer sheets immediately following this page.

Commercial Material: The Word Bird is available from the Learning Works, P.O. Box 6187, Santa Barbara, CA 93111, at $4.50 each. It may be purchased at the same price from the Educational Exchange, 600 35th Ave., San Francisco, CA 94121.

Processing: Remove all pages from booklet. Place pages 6-43 in plastic sleeves. Puzzle pages will be filed in the ICES file at each school appropriately labeled in a manila envelope provided. Xerox answer pages 44, 45 and 46. These are to follow the teachers sheet.

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ANSWERS

PAGE 6. WHAT'S COOKING?

blend
broil
bake
simmer
knead
chop
fry
grill
stew
marinate

PAGE 7. HAPPY HOUSE HUNTING

lamp
table
bed
couch
sofa
chair
desk
bookshelf
headboard
dresser

PAGE 8. CALLING ALL BIRD WATCHERS!

parakeet
vulture
ostrich
sparrow
robin
crow
hawk
buzzard
pigeon
penguin

PAGE 9. WHAT'S ON THE LINE?

suit
vest
overalls
scarf
tie
sweater
shirt
slip
blouse
sock

PAGE 10. "B" WORD PUZZLE

1. back
2. beet
3. bank
4. bite
5. burn
6. bald
7. bent
8. below
9. blind
10. blink
11. blend
12. boast

PAGE 11. "D" WORD PUZZLE

1. desk
2. dull
3. dock
4. damp
5. dark
6. deer
7. deep
8. dozen
9. dirty
10. dress
11. drink
12. desert

PAGE 12. "P" WORD PUZZLE

1. pony
2. pain
3. poor
7. palm
5. poke
6. plow
7. pick
8. poet
9. pilot
10. pound
11. prize
12. pillow

PAGE 13. "S" WORD PUZZLE

1. same
2. save
3. smog
4. skin
5. sick
6. shut
7. seal
8. shove
9. solid
10. shore
11. shave
12. sharp

PAGE 14. ONE AWAY

1. paint
2. scissors
3. add
4. lettuce
5. bird
6. circle
7. hose
8. few
9. television
10. mountain
11. stove
12. boat

PAGE 15. ONE AWAY AGAIN

1. lazy
2. summer
3. pig
4. radio
5. eraser
6. mail
7. Illinois
8. skirt
9. lamp
10. Mars
11. Los Angeles
12. jazz

PAGE 16. PICK A WORD

1. tepee
2. oak
3. penny
4. wasp
5. leopard
6. bun
7. teeth
8. stem
9. scarf
10. North America
11. grapefruit
12. cauliflower

PAGE 17. JUMBLED JOBS

1. law
2. teeth
3. food
4. flowers
5. drugs
6. cars
7. animals
8. hair
9. music
10. buildings
11. stars
12. medicine

PAGE 18. FLIP-FLOPS

1. ear are era
2. war raw
3. lap pal
4. low owl
5. pea ape
6. tap pat apt
7. arm ram mar
8. won now own
9. vase save
10. robe bore
11. race acre care
12. hose shoe hoes

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ANSWERS

PAGE 19. MORE FLIP-FLOPS

1. ten net
2. tar rat art
3. ton not
4. pot top opt
5. pan nap
6. bear bare
7. team meat mate
8. dear dare read
9. same seam mesa
10. note tone
11. near earn
12. lose sole

PAGE 20. WHAT DO YOU "C?"

1. cream
2. cruise
3. cottage
4. custard
5. courage
6. carriage
7. cucumber
8. curtain
9. continue
10. crocodile
11. coyote
12. counterfeit

PAGE 21. "O" SAY CAN YOU SEE?

1. often
2. occur
3. office
4. occasion
5. ornament
6. opposite
7. organize
8. operate
9. opening
10. octopus
11. observe
12. occupation

PAGE 22. WHAT WOULD YOU DO WITH? #1

1. b
2. c
3. b
4. c
5. a
6. b
7. c
8. a
9. a
10. c

PAGE 23. WHAT WOULD YOU DO WITH? #2

1. a
2. b
3. a
4. c
5. b
6. c
7. a
8. b
9. c
10. c

PAGE 24. WHAT WOULD YOU DO WITH? #3

1. b
2. a
3. c
4. b
5. a
6. b
7. a
8. c
9. b
10. c

PAGE 25. WHAT WOULD YOU DO WITH? #4

1. c
2. a
3. c
4. b
5. a
6. b
7. c
8. a
9. b
10. c

PAGE 26. TEACHER "T"

1. termite
2. tennis
3. task
4. terrier
5. twig
6. thief
7. tour
8. topic
9. tea
10. tourniquet
11. trail
12. trumpet

PAGE 27. ROBOT "R"

1. raspberry
2. raccoon
3. reed
4. robin
5. restaurant
6. rival
7. ripple
8. rose
9. roar
10. riddle
11. reply
12. raft

PAGE 28. MISTER "M"

1. magnolia
2. mineral
3. macaroni
4. marsh
5. mitt
6. meteor
7. myth
8. mongoose
9. manager
10. market
11. mango
12. mumps

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ANSWERS

PAGE 29. LADY"L"

1. latch
2. lecture
3. lollipop
4. locket
5. leopard
6. lettuce
7. leech
8. lobby
9. lark
10. lute
11. lemon
12. lilac

PAGE 30. SPORT ABOUT

1. h
2. l
3. f
4. k
5. b
6. j
7. d
8. i
9. a
10. e
11. c
12. g

PAGE 31. WHO WORKS WHERE?

1. k
2. i
3. f
4. d
5. g
6. c
7. a
8. j
9. l
10. e
11. b
12. h

PAGE 32. WHERE WOULD YOU FIND?

1. i
2. k
3. d
4. g
5. f
6. a
7. h
8. l
9. c
10. j
11. e
12. b

PAGE 33. MUSICAL CONSONANTS

1. drum
2. oboe
3. tuba
4. harp
5. piano
6. banjo
7. violin
8. flute
9. accordion
10. guitar
11. clarinet
12. trumpet

PAGE 34. PICK A PAIR

1. rich, wealthy
2. normal, regular
3. fortunate, lucky
4. below, under
5. weary, tired
6. brag, boast
7. question, ask
8. custom, habit
9. easy, simple
10. mad, angry
11. puzzle, riddle
12. quick, rapid

PAGE 35. OPPOSITES ATTRACT

1. poor, rich
2. lose, win
3. forward, backwards
4. asleep, awake
5. hot, cold
6. hard, soft
7. noisy, quiet
8. loose, tight
9. dry, wet
10. shy, brave
11. long, short
12. right, wrong

PAGE 36. MATCH A SUFFIX

1. d
2. j
3. f
4. e
5. c
6. i
7. g
8. h
9. a
10. b

PAGE 37. MATCH A "MENT"

1. i
2. d
3. g
4. j
5. c
6. h
7. a
8. f
9. b
10. e

PAGE 38. INTERESTING "IN"

1. insane
2. inform
3. infection
4. invisible
5. insincere
6. incorrect
7. inside
8. individual
9. increase
10. incomplete

PAGE 39. DISCOVERING "DIS"

1. discard
2. disagree
3. discuss
4. distant
5. display
6. disobey
7. disorder
8. disappear
9. discover
10. dishonest

PAGE 40. PRESENTING "PRE"

1. prefix
2. prefer
3. present
4. prepare
5. pretend
6. preview
7. prevent
8. preserve
9. previous
10. prescription

PAGE 41. UNDERSTANDING "UN"

1. uneasy
2. unkind
3. undone
4. unhappy
5. undress
6. unequal
7. unsound
8. unusual
9. unemployed
10. unattached

PAGE 42. LINK A VERB

1. l
2. k
3. b
4. a
5. i
6. d
7. c
8. j
9. f
10. e
11. h
12. g

PAGE 43. ADJECTIVE HUNT

1. g
2. j
3. a
4. e
5. c
6. k
7. h
8. i
9. f
10. l
11. b
12. d

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Independent Curriculum Enrichment Studies

LANGUAGE ARTS

This study is for

Date to begin is

Your study will be You Can Write Chinese.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the book You Can Write Chinese by Kurt Wiese. You will find it in the Media Resource Center with the call number 495-W.

**paper and pencil, or black paint or ink with a brush.

The work you turn in will be

Choose one of these projects:

☐ find out how the Chinese hold a brush to make their letters. Practice until you can make a sample of Chinese writing for your classroom or library. If you can, show your class how it is done.

☐ write a little story using the Chinese characters in this book.

☐ look up other ways of writing. Make a chart of three very different ways to write.

When you need help, see

Try to finish your study by

Turn in the finished work to

Teacher Information

Grades 3-4; for one student

Time: 2 to 4 periods

IMC Information

Commercial material: Book available from the Viking Press, Inc., 625 Madison Avenue, New York, NY 10022 at $4.95 hardbound or 95¢ in paperback.

Processing: Catalog into the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Adam of the Road by Elizabeth Janet Gray.

Separated from his father and his dog, Adam earned his way along the highroads of England as a minstrel. You will read the book and contract with your teacher to do some of the following: vocabulary bookmark, character chart, two Adam of the Road puzzles, two or more activities.

Materials you will need are

** your contract for this study...Take one from the ICES file.
** your copy of this study... Take one from the ICES file.
** the book..Adam of the Road... check it out from the Media Resource Center, under the call number GRA.
** paper and pencil

The work you turn in will be

☐ Vocabulary bookmark
☐ Character chart
☐ Two Adam of the Road puzzles
☐ Activity numbers ______ and ______

When you need help, see

Try to finish your study by

Turn in the finished work to

Literature
Adam of the Road by Elizabeth Janet Gray

Teacher information

Grades 4-6; individuals or groups

Time: Approximately 5 periods for basic work; 2-5 periods for activities.

Assignment: Be sure to check the boxes on the contract if you want the student to do a character chart, bookmark and/or puzzles. The student is directed to confer with a teacher before beginning his chosen activities.

IMC Information:

Study: Cover and 7 pages

Additional Teacher materials: Answers to worksheets "Job Search" and "Adams Anagrams"

Commercial material: Order books from Vanguard Press, 424 Madison Avenue, New York, N.Y. 10017 or Baker and Taylor Co., 380 Edison Way, Reno, Nv. 89502. Paperback

Teacher's Answers to Puzzles

Job Search Answer card

Smithy-	One who shod horses
Falconer-	One who raised and tended hawks
Porter-	Gatekeeper of a castle
Oxherd-	One who took care of oxen
Knight-	Noble warrior who served the king
Minstrel-	Entertainer and teller of tales
Squire-	Knight's attendant
Friar-	Member of a religious order
Heyward-	Mender of fences
Bailiff-	Collector of money for a lord
Yoeman-	Expert bowman

Adam's Anagram Answer Card

1. DRABYA	BAYARD
2. KCIN	NICK
3. GUHH	HUGH
4. YRAEGMR	MARGERY
5. KNAJNI	JANKIN
6. RPENKI	PERKIN
7. ORGRE	ROGER
8. AMDA	ADAM
9. RAEDWN	ANDREW
10. SALINO	ALISON

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Adventurous Animals

You will read a book about adventurous animals chosen from the bibliography in this study.

You will answer questions about the book (if the study asks questions about your book).

You will choose at least one activity to do from the activities listed for your book.

Materials you will need are

- **your copy of this contract. . . Obtain this from the ICES file.
- **a copy of this study . . . Take one from the ICES file.
- **a book of your choice from the Adventurous Animals Biliography. Check this out of the Media Resource Center.
- **a pencil
- **lined paper
- **drawing paper and crayons (for some activities)

The work you turn in will be

☐ You answers to the questions (if this study asks questions about your book).

☐ At least one completed activity of your choice from those listed for your book.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Adventurous Animals

Teacher Information

Grades 2-3, for one student

Time: Two or more periods

IMC Information

Study: Cover and 21 pages.

Processing: Catalog books into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Amelia Bedelia by Peggy Parish

Do you always know just what to do when your mother gives you a job to do? See what happens to Amelia Bedelia. You will read a book, write two sentences about the book, and draw several pictures about the story.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a copy of this study...You may check one out from the ICES file.

**the book...You will find it in the easy book section of the library under the call number $\overset{E}{P}$.

**lined paper and drawing paper.

**a pencil and crayons.

The work you turn in will be

☐ pictures of characters in the book

☐ two sentences

☐ two other pictures

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Amelia Bedelia by Peggy Parish

Teacher Information

Grades 1&2; for one student.

Time: 1 or 2 periods.

IMC Information

Study: Cover and 2 pages.

Commercial materials: The book from Harper & Row Pubs., Inc., 10 E. 53rd St., New York, NY 10022, at $3.95. Also available in paperback from Scholastic Book Services, 50 W. 44th St., New York, NY 10036, at $.95.

Processing: Catalog into library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be And to Think That I Saw it on Mulberry Street
by Dr. Seuss.

For this study, you will read the book, make a vocabulary bookmark, a cartoon strip and will choose one activity to do.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Check it out from the ICES file.
- **a copy of the book And to Think That I Saw it on Mulberry Street...You will find it in the Media Resource Center under the call number ~~SEU.~~ E S
- **a vocabulary bookmark... Take one from the ICES file.
- **pencil, crayons and unlined paper.
- **other materials for the activity you choose...Be sure that you will be able to get all the materials you will need before you begin.

The work you turn in will be

☐ Vocabulary bookmark

☐ A completed cartoon strip.

☐ A completed activity project.

When you need help, see

See your teacher before you begin on your chosen activity.

Try to finish your study by

Turn in the finished work to

LITERATURE

And to Think That I Saw it on Mulberry Street by Dr. Seuss

Teacher Information

Grades: 2-3; for one to four students.

Time: Approximately 2-5 periods.

Assignment: Be sure to check which projects are to be done and what work is to be turned in.

IMC Information:

Study: Cover and 3 pages.

Consumable: Bookmark

Commercial material: Book from Vanguard Press, Inc., 424 Madison Ave., New York, NY 10017 or Baker & Taylor, Company, 380 Edison Way, Reno, Nevada, 89502.

Processing: Catalog book into library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Andy and the Lion by James Daugherty

Read this book to find out what happened between Andy and an interesting lion. After you have read the book, you will write answers to six questions.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES files

**a copy of the study . . . You will find it in the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number ED.

**lined paper

**a pencil

The work you turn in will be

☒ your answers to the six questions

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Andy and the Lion by James Daugherty

Teacher Information

Grade: 2; for one student.

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should contact the teacher or MGM resource aide).

Teacher answers to questions in this study:

1. Story 2
2. Story 1
3. Story 2
4. A tall story is one that tells things in an exciting way, even if it is not completely true.
5. His kindness.
6. He has no shoes, old clothes, lives on a poor farm.
7. His grandfather.

IMC Information

Study: Cover and 2 pages.

Commercial material: book from Viking Press
625 Madison Avenue
New York, N.Y. 10022

Price: $5.95

Processing: Catalog book into library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Be Nice to Spiders by Margaret Bicy Graham

You will find out about a spider named Helen who Billy gave away. You will write or draw answers to six questions or activities.

Materials you will need are

- **your copy of this contract . . . You will find it in the ICES file.
- **a copy of the study . . . Take one from the ICES file.
- **the book . . . You will find it in the easy book section of the library under the call number EG
- **lined paper
- **drawing paper
- **a pencil
- **crayons

The work you turn in will be

☐ your answers to the questions and activities

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Be Nice to Spiders by Margaret Bicy Graham

Teacher Information

Grade 2 for one student

Time: 2 or 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide).

Teacher answers to questions in study:

1. Fiction
2. 8 legs
3. He had to move.
4. Student response.
5. Sentence with vocabulary word.

IMC Information

Study: Cover and 2 pages.

Commercial material: Book from Harper & Row Publishing, Inc.
10 E. 53rd Street
New York, N.Y. 10022

Price: $3.95

Processing: Catalog book into library.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Biggest Bear by Lynd Ward

Johnny looks for the biggest bear in the woods. What he finds and take home is only a cub, but it grows, and grows and grows! Read this book to find out what happens. After you read the book you will learn about some new words and write answers to four questions.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES file.

**a copy of the study . . . You will find it in the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EW

**lined paper

**a pencil

The work you turn in will be

☐ your answers to four questions

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Biggest Bear by Lynd Ward

Teacher Information

Grade: 2; for one student

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide.)

Answers to questions in the study:

1. Johnny Orchard, the biggest bear.
2. Johnny's family helped him with his pet and listened to his problem
3. Four pictures I liked best and why.
4. Johnny was humiliated by having no bearskin on the barn.
5. trial and tribulation -- student response
6. Johnny sets out to get a bearskin
7. Student response.
8. Farmers shoot bears because they steal food and ruin crops.

IMC Information

Study: Cover and 2 pages

Commercial material: Book from Houghton Mifflin Company
777 California Avenue
Palo Alto, CA 94304

Price: $6.95

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Blackmail Machine by Felice Holman

The children of the town of Goodbury built a flying machine to help a friend. Even the mayor had to listen to them. You will read this book and discuss it with several other students who have also read it. You will make a vocabulary bookmark, a character chart and participate in one or more group activities.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of the book The Blackmail Machine by Felice Holman...You will find it in the Media Resource Center under the call number HOL.
**a Bookmark for vocabulary study...Take one from the ICES file.
**a Character Chart #1...Take one from the ICES file.
**other materials as needed for the group activities in which you will participate.

The work you turn in will be

☒ a Bookmark

☒ Character Chart #1

☒ group answers to discussion questions

☒ group activity number____

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Blackmail Machine

Teacher Information

Grades 4 to 6 for a group of 4-6 students.

Time will vary greatly depending upon students. The teacher will be the best judge of this.

Assignment: Be sure to discuss with the students how and where they will work together on their group activity.

IMC Information

Study: Cover and 5 pages.

Consumables: Character Chart #1, Bookmark for vocabulary study.

Commercial material: The book can be ordered from Macmillan Publishing Co., 866 Third Avenue, New York, N.Y., 10022, $4.95 for hardback or $.95 for paperback.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Blaze and the Indian Cave by C.W. Anderson

Read this book to find out about the interesting Indian cave drawings. In reading the book, you will learn some new words and then will write or draw answers to four questions or activities.

Materials you will need are

**your copy of this contract. . . You will find it in the ICES file.

**a copy of the study . . . You will find it in the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EA

**lined paper

**drawing paper

**a pencil

**crayons

The work you turn in will be

☐ Your answers to the questions and activities

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Blaze and the Indian Cave by C.W. Anderson

Teacher Information

Grade: 2 for 1 student

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level it to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide).

Teacher answers to questions in this story:

1. Vocabulary words.
2. Because his master is kind to him.
3. He camped out by himself; he caught a thief.
4. Student response.

IMC Information

Study: Cover and 2 pages

Commercial material: Macmillan Publishing Company
866 Third Street
New York, N.Y. 10022

Price: $4.50

Processing: Catalog book into library.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Book Games.

This study gives you instructions for making a board game based on a book or story that you have read. Two students who have read the same book may work on a book game together.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Book Games study...Check it out from the ICES file in the Media Resource Center.
- **tagboard or a legal size manila file folder, small cards, art supplies and dice or a spinner...Be sure that you will be able to get all of the supplies you will need before you begin this study.

The work you turn in will be your completed game board along with rules, question cards, vocabulary cards, and definitions.

When you need help, see

Before you do your final drawing and coloring, show your game board sketch to your teacher.

Try to finish your study by

Turn in the finished work to

LITERATURE
Book Games

Teacher Information

Grades 1-6; for one or two students.

Time: 5 to 10 periods.

Assignment: This activity may follow the reading of any story or book, preferably one with a strong plot line. It is referred to as an activity in several of the other literature studies in ICES; however, it can also be given as an independent assignment.

IMC Information

Study: 2 pages (no cover)

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Book of Three by Lloyd Alexander.

Taran, the Assistant Pig Keeper, goes forth to battle the evil Horned King. When you finish the book you will do two worksheets: "Who Said That?" and "Who or What am I?" Your contract may include a vocabulary bookmark and a character chart, if checked by your teacher. Afterwards you will choose one activity.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of the study...Check it out from the ICES file.
- **a copy of the book...You will find it in the Media Resource Center under the call number ALE
- **vocabulary bookmark and Character Chart #2 if your teacher has checked them...Take one of each from the ICES file.
- **"Who Said That?" and "Who or What am I?" worksheet...Take one from the ICES file.
- **materials for activities as needed...Be sure that you will be able to get all the materials you will need before you begin.

The work you turn in will be

☐ Vocabulary bookmark.

☐ Character Chart #2.

☒ "Who Said That?" worksheet.

☒ "Who or What am I?" worksheet.

☒ Activity number______.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Book of Three by Lloyd Alexander

Teacher Information

Grades 4-6; for one student

Time: 5 to 8 periods for basic study; 2 to 6 periods for activity

Assignment: Be sure to check the box for bookmark and/or character chart if you would like the student to complete those activities.

IMC Information

Study: Cover and 4 pages.

Consumable: Who Said That? and Who or What am I? worksheets (run back-to-back)

Additional Teacher Information: Answer key to consumables

Commercial material: Paperback book from Dell Publishing Co., 1 Dag Hammarskjold Plaza, 245 E. 47th Street, New York, NY 10017 at $1.25 ea.

Processing: Catalog book into the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Books for Animal Lovers

To begin this study you will find the Literature Sampler in your Media Resource Center. The fourth section of the sampler is called Animals. There you will find a group of cards describing exciting animal stories. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ____________________

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Literature Sampler...You will find it in the Media Resource Center under the call number KS-028.5-L.
- **a copy of this study...Check it out from the ICES file.
- **the book you are going to read...Be sure you check it out from the Media Resource Center.
- **you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project
☒ your personal project
☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher or MGM aide before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Books for Animal Lovers

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover and 3 pages.

Commercial material: Literature Sampler kit from Learning Research Associates, 1510 Broadway, New York, NY 10036, at $54.50 without books.

Processing: Catalog kit into the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Book Sharing Activity Cards for Fun.

Begin by finding a book you have already read and would like to tell about. Or take a book you have been wanting to read. After you have read your book, choose one idea from the card set and do it. (Is it hard to choose from so many cards? If it is, have a friend hold the cards while you close your eyes and pick three cards. Then pick one of those ideas.)

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the cards...You will find them in the Media Resource Center under the call number KS-428.4-B.
- **the supplies for your activity...Be sure you will be able to get everything you need before you begin.

The work you turn in will be your book sharing project.

When you need help, see

Check with your teacher before your begin.

Try to finish your study by

Turn in the finished work to

LITURATURE
Book Sharing Activity Cards for Fun.

Teacher Information

Grades 2 - 5; for one student (usually).

Time will vary; set a time after the student chooses his book and his project idea.

Assignment: This study may be done many times using a different book and/or card each time. The cards simply suggest many ways to give a book report. Second grades may need some help in reading the cards and may find some projects too difficult.

IMC Information

Commercial material: Cards from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, Ca 90274 or Teachers Exchange of San Francisco, 600 - 35th Avenue, San Francisco, Ca 94121 at $4.95 each.

Processing: Remove cards labelled "Suggestions" (1) and "Contents" (2). On card 10 type or letter: "Look up the Book Games study in the ICES file. On card 37, type or letter: "Ask your librarian for the book Planning and Producing Audiovisual Materials by Jerrold Kemp. Catalog card set into the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Bread and Jam for Frances by Russell Hoban.

As you read the book, you will discuss some questions with your team. Your work may include a vocabulary bookmark and a character chart, if checked by your teacher. Afterwards, you will choose one activity.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**your copy of the study...Check it out from the ICES file.
**a copy of the book Bread and Jam for Frances...You will find it in the Media Resource Center under the call number E-H.
**the recording of the book (if you wish to use it)...You will find it in the Media Resource Center under the call number RD-E-H.
**vocabulary bookmark and character chart #1 if your teacher has checked them...Take one of each from the ICES file.
**materials for activities as needed...Be sure that you will be able to get all the materials you will need before you begin.

The work you turn in will be

☐ Vocabulary bookmark
☐ Character chart #1
☒ Activity

When you need help, see

See your teacher before you begin on your chosen activity.

Try to finish your study by

Turn in the finished work to

LITERATURE

Bread and Jam for Frances by Russell Hoban

Teacher Information

Grades: 1-3; for two to four students.

Time: 5 periods for bookmark and character chart; 1-3 periods for activity.

Assignment: Be sure to check the box for bookmark and/or character chart if you would like the student to complete those activities.

IMC Information

Study: Cover and 6 pages.

Consumable: Bookmark

Commercial material: Paperback with record, Scholastic Book Services, 50 West 44th Street, New York, NY 10036, $1.95. Extra copies of paperback, same source, 60¢ each.

Processing: Catalog book and record into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Brighty of the Grand Canyon by Marguerite Henry

You will accompany Brighty on some exciting adventures while learning a great deal about the Grand Canyon. You will do three special creative writing and drawing projects while reading the book and complete Brighty's Special Word List, Eyeful and Earful Word Sheet, a Character Chart No. 1 and a Vocabulary Bookmark (if your contract calls for it). You will also choose and complete one Creative Thinking Project from those listed.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**Brighty's Special Word List...Get it from the ICES file.
**Eyeful and Earful Word Sheet...Get it from the ICES file.
**Character Chart #1...You will find one filed under C in the ICES file.
**a Bookmark, if that is checked below...You will find one filed under B in the ICES file.
**a copy of Brighty of the Grand Canyon...Check this out of the Media Resource Center. It is listed under the call number HEN.
**lined and drawing paper.
**pencil and crayons or paints.
**other materials as needed for Creative Thinking Projects.

The work you turn in will be

☒ your three special assignments
☒ Brighty's Special Word List
☒ Eyeful and Earful Word Sheet
☒ Character Chart No. 1
☐ Vocabulary Bookmark
☒ One Creative Thinking Project

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Brighty of the Grand Canyon by Marguerite Henry

Teacher Information

Grades 5 and 6; for one student.

Time: 12 to 15 periods. It may be considerably longer depending on what Creative Thinking Project is chosen.

Assignments: The special assignments in this study are mainly creative writing assignments. Students who are especially interested and/or talented in this area should be directed to this study. Also students with a special interest in animals, geology or geography or even U.S history will find this study very profitable. While doing this study students will learn a great deal about the Grand Canyon and may wish to pursue this further. The Creative Thinking Projects afford a variety of activities for students whose interests in any of a number of subjects may have been piqued by this study.

IMC Information

Study: Cover and 8 pages.

Consumables: Eyeful and Earful Word Sheet, Brighty's Special Word List

Commercial material: Book available from Rand McNally & Co., P.O. Box 7600, Chicago, IL, 60680, at $4.95. Also available in paperback at $1.95.

Processing: Print consumables on both sides of sheet.
Catalog book into library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Calling All Sports Fans

To begin this study you will find the Literature Sampler in your Media Resource Center. The second section of the sampler is called Sports. There you will find a group of cards describing exciting sports stories. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ______________________________

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the Literature Sampler...You will find it in the Media Resource Center under the call number KS-028.5-L.
**a copy of this study...Check it out from the ICES file.
**the book you are going to read...Be sure you check it out from the Media Resource Center.
**you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project
☒ your personal project
☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher or MGM aide before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Calling All Sports Fans

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover 3 pages.

Commercial material: Literature Sampler kit from Learning Research Associates, 1510 Broadway, New York, NY 10036, at $54.50 without books.

Processing: Catalog kit into the library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be "I Can't" Said the Ant by Polly Cameron

Find out what the ant couldn't do. You will work a crossword puzzle and will write two rhymes.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.

**a copy of this study . . . You may check it out from the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EC.

**lined paper.

**"I Can't" Said the Ant Crossword Puzzle . . . Take one from the "I Can't Said the Ant" envelope in the ICES file.

**a pencil.

The work you turn in will be

crossword puzzle

two rhymes

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

"I Can't" Said the Ant by Polly Cameron

Teacher Information

Grades 1 and 2; for one student.

Time: 2 or 3 periods.

Assignment: This is one of several studies for primary students designed to introduce them to independent studies. They will learn to get their materials together, read their book and do only one or two simple activities. After doing several of these studies they may be assigned more complex studies requiring longer concentration and having greater number of independent activities to be carried out.

IMC Information

Study: Cover and 1 page.

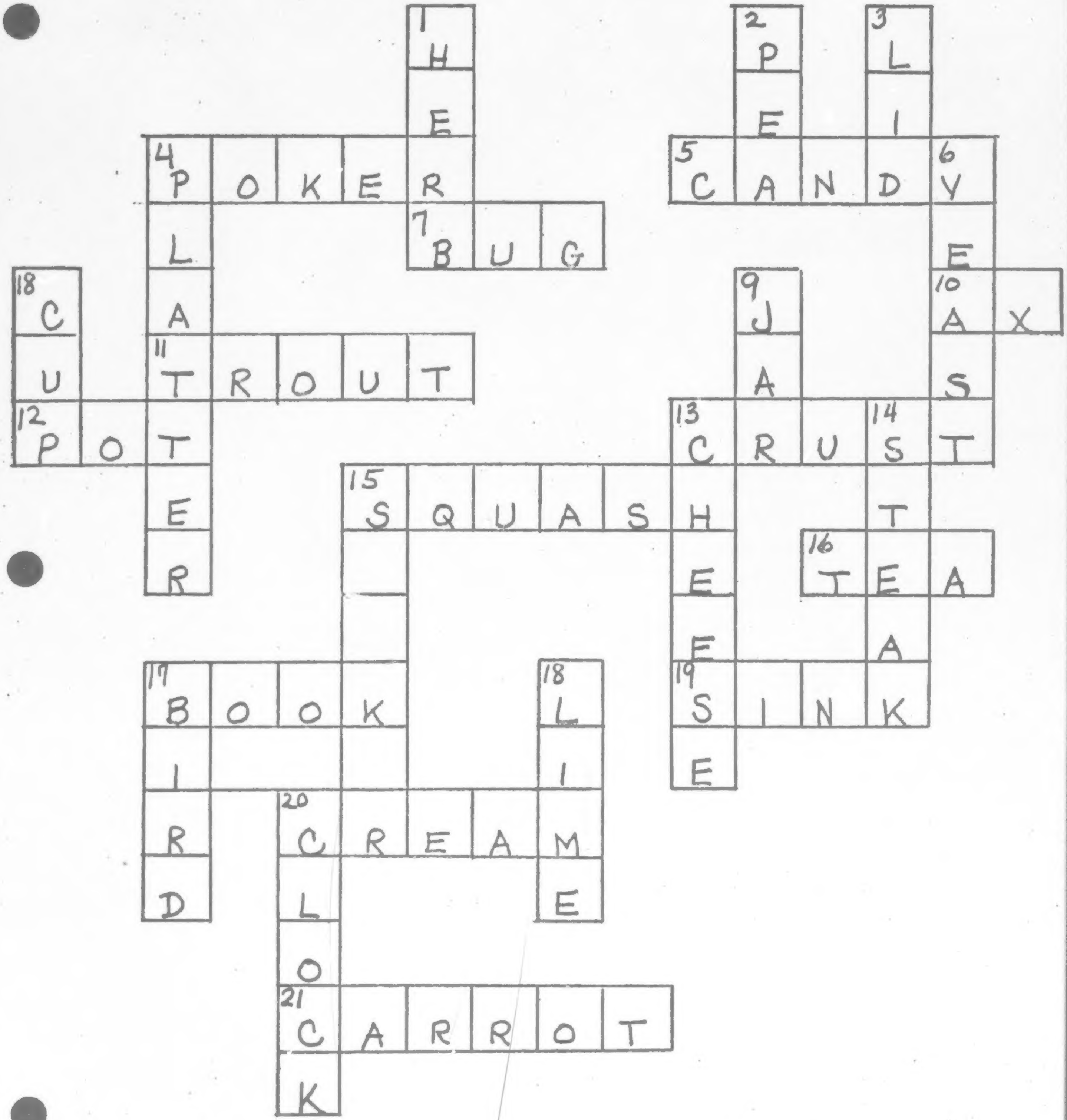
Consumable material: "I Can't" Said the Ant crossword puzzle.

Additional teacher material: answer sheet for crossword puzzle.

Commercial materials: book from Coward, McCann & Geoghegan, Inc.
200 Madison Avenue
New York, N.Y. 10016
Price: $3.99

Processing: Catalog book into library.

"I CAN'T," SAID THE ANT
CROSSWORD PUZZLE ANSWERS


1 HER
2 PEA
3 LIE
4 POKER
4 PLATTER
5 CANDY
6 YEAST
7 BUG
9 JAR
10 AX
11 TROUT
12 POT
13 CRUST
13 CHEESE
14 STEAK
15 SQUASH
16 TEA
17 BOOK
17 BIRD
18 CUP
18 LIME
19 SINK
19 SE
20 CREAM
20 CLOCK
21 CARROT

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Cay by Theodore Taylor.

Your team will begin by reading the book and discussing questions. Team members will discuss the questions together, but each person will write out the answers to 1 or 2 questions after the discussion. If checked below, each person will do a vocabulary study. All team members will do the Hurricane Scramble. When the first part of the study has been completed, you will choose an activity to do from those listed at the end of the study. You may work separately or together on the activities.

The Cay tells of the adventures of a boy who was stranded on a small island in the Carribean. Blinded in a shipwreck, he is tossed ashore on the island along with an elderly black man. The two of them struggle to survive a hurricane.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**a copy of the study...Check one out from the ICES file.
**a copy of the book...You will find it in the Media Resource Center under the call no. TAY.
**a bookmark, if that is checked below...You will find one filed under B in the ICES file.
**a Hurricane Scramble puzzle...Take one from the ICES file; the envelope is filed under "The Cay".
**materials for activities vary...Be sure you can get all the materials you will need before you begin your activity.

The work you turn in will be:

☒ Written answers to the questions as you discussed them in your team.
☐ A vocabulary bookmark.
☒ A Hurricane Scramble puzzle for each team member.
☒ Your activity.

When you need help, see

Check with your teacher before you begin the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE
The Cay

Teacher Information

Grades: 5-6; for four or five students.

Time: 5 periods for required work; project times will vary and should be set when the activity is selected.

Assignment: If you want the team members to complete a vocabulary bookmark, be sure to check that box on the contract sheet.

IMC Information

Study: Cover and 5 pages.

Consumable: Hurricane Scramble.

Commercial material: Paperback from Avon Paperbacks, 959-8th Avenue, New York, N. Y., 10019, at 75¢.

Processing: Catalog book into the library.

Rev. 4/76

The Cay
ANSWERS

Hurricane Scramble

The hurricane tumbled all these words. Work with your group to put them back together.

1	e	e	r	i	e					
2	r	i	p	p	L	e				
3	p	e	L	t	e	d				
4	f	L	a	y	e	d				
5	r	a	t	t	L	e	d			
6	r	e	c	e	d	e	d			
7	d	e	s	c	r	i	b	e		
8	c	o	n	s	c	i	o	u	s	
9	s	L	i	t	h	e	r	i	n	g
10	p	u	n	i	s	h	m	e	n	t
11	f	o	r	g	o	t	t	e	n	

1. reeei
2. pripel
3. deplet
4. ylafde
5. ttalrde
6. cddreee
7. sdecebir
8. socscnoiu
9. lsgitinhre
10. tpeunhmisn
11. nooftrtge

Definitions

1. weird
2. tiny wave
3. hit hard by objects
4. stripped off
5. shook
6. moved backward
7. tell about
8. aware
9. sliding along
10. penalty
11. not remembered

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Charlotte's Web by E. B. White

A wise story about a spider and her interesting friends. You will read the book, make a vocabulary bookmark, do a Character Chart #1, a "Web of Friends" worksheet and one activity of your choice.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Take one from the ICES file
- **your copy of Character Chart #1...Take one from the ICES file.
- **your copy "Web of Friends" worksheet...Take one from the ICES file.
- **the book Charlotte's Web...You will find it in the Media Resource Center under the call number WHI.
- **paper and pencil

The work you turn in will be

☒ Vocabulary Bookmark

☒ Character Chart #1

☒ "Web of Friends" Worksheet

☐ Activity #_____

When you need help, see your teacher.

Try to finish your study by

Turn in the finished work to 199

LITERATURE
Charlotte's Web by E. B. White

Teacher Information

Grades 3-5 for one student

Time: 4 to 6 periods for basic study - additional periods for activity.

Assignment: Be sure to mark the activity you wish the student to do.

IMC Information

Study: Cover and 6 pages.

Consumable: "Web of Friends" worksheet

Additional Teacher Material: "Web of Friends" answer sheet

Commercial material: Book available from Harper-Row, 33195 Lewis Ave., Union City, CA 94587, $1.25 ea.

Processing: Catalog book into the library.

7/76

Teacher's Key to Web Puzzle

Around		Down	
A1.	Charlotte	D1.	Fern
A2.	Crickets	D2.	Lurvy
A3.	Mr. Arable	D3.	Templeton
A4.	The Old Sheep	D4.	Mrs. Arable
A5.	Avery	D5.	The Goose
A6.	Mr. Zuckerman		

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Creative Catactivities I

You will select and read one or more books about cats either from the bibliography in the study or from other cat books you find in the Media Resource Center. You will choose at least three "Catactivities" to do.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Check one out from the ICES file.
- **copies of the books you have selected to read...Check these out from the Media Resource Center.
- **other materials required for the Catactivities you choose...Before beginning any activity be sure that you can obtain all the materials you need for it.

The work you turn in will be

☒ Catactivities number ____, ____ and ____ .

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Creative Catactivities I

Teacher Information

Grades 1-4 for one student

Time: 5 to 10 periods or more.

IMC:Information

Study: Cover and 5 pages.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Creative Catactivities II

You will select and read two or more books about cats either from the bibliography in the study or from other cat books you locate in the Media Resource Center. When you are finished you will choose at least three "Catactivities" to complete.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...Check one out from the ICES file.
**copies of the book(s) you have selected to use...Check these out of the Media Resource Center.
**other materials as required for the Catactivities you select.

The work you turn in will be

☒ Catactivities number ____, ____ and ____.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Creative Catactivities II

Teacher Information

Grades 3 to 6 for one student.

Time: 10 to 15 periods or more.

IMC Information:

Cover and 6 pages.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Do You Love A Mystery?

To begin this study you will find the Literature Sampler in your Media Resource Center. The sixth section of the sampler is called Mystery. There you will find a group of cards describing exciting mystery stories. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ______________________

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the Literature Sampler...You will find it in the Media Resource Center under the call number KS-028.5-L.
**a copy of this study...Check it out from the ICES file.
**the book you are going to read...Be sure you check it out from the Media Resource Center.
**you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project
☒ your personal project
☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher or MGM aide before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Do You Love A Mystery?

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover and 3 pages.

Commercial material: Literature Sampler from Learning Research Associates, 1510 Broadway, New York, NY 10036, at $54.50 without books.

Processing: Catalog kit into the library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

The Egypt Game by Zilpha Snyder

In an old storage yard a group of sixth graders dramatized various aspects of ancient Egypt. Intense excitement builds when a murderer roams the neighborhood and an oracle's prediction comes true. You will read the book and do some of the following: make a vocabulary bookmark; do a Character Chart #1; answer or do at least 3 study questions or illustrations; make a hieroglyphic alphabet and at least one other activity.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of the study...Check it out from the ICES file.
- **a copy of the book...You will find it in the Media Resource Center under the call number SNY.
- **vocabulary bookmark and Character Chart #1 if your teacher has checked them...Take one of each from the ICES file.
- **pencil and paper.
- **materials for activities as needed...Be sure that you will be able to get all the materials you will need before you begin.

The work you turn in will be

☐ Vocabulary bookmark
☐ Character Chart #1
☒ Answers to study questions (or illustrations) numbers ____, ____, and ____.
☒ Hieroglyphic scroll
☒ Activity number _____

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Egypt Game by Zilpha Snyder

Teacher Information

Grades 4-6 for one student

Time: 18 or 20 periods for basic work. 2-6 periods additional depending on which activity is chosen.

Assignment: Be sure to mark on the front of the student's contract which items he/she is to complete.

IMC Information

Study: Cover and 6 pages

Consumable: Character Chart #1, vocabulary bookmark

Commercial material: The paperback book from Atheneum Press, 122 E. 42nd St., New York, N.Y. 10017, $1.95 each.

4/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Fast Sooner Hound by Arna Bontemps and Jack Conroy

Do you know what a sooner hound is? You will by the time you finish this book. When you finish the book you will write the answers to some questions about the story and write some describing sentences which the study asks for.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.

**a copy of this study . . . You may check it out from the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EB.

**lined paper

**drawing paper

**a pencil

** crayons.

The work you turn in will be

☒ your answers to the questions

☒ your sentences

When you need help, see

Try to finish your study by

Turn in the finished work to 204

LITERATURE

The Fast Sooner Hound by Arna Bontemps and Jack Conroy

Teacher Information

Grade 2 or 3

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher of MGM resource aide).

Teacher answer sheet to study questions:

1. Boomer - a man who goes from one railroad to another.
2. A hound that would sooner run than eat.
3. For steam to power the train.
4. He loved the Boomer too much.
5. Student response.

IMC Information

Study: cover and 2 pages

Commercial material: book from Houghton Mifflin Company
777 California Avenue Price: $4.95
Palo Alto, CA 94304

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

Lillian

LITERATURE

This study is for

Date to begin is

Your study will be Fiddling with Folklore.

☐ Part One

☐ Part Two -- your project is ____________________

Materials you will need are

**a copy of this study...each member of the team may check one out from the ICES file.
**one worksheet for this study...your team will share one set of worksheets.
**various books from the Media Resource Center.
**the Fiddling with Folklore job cards...you will find them in the Media Resource Center under the call number KS-398.2-F.
**a world outline map...get one from the ICES file.
**various materials for your followup project...be sure you will be able to get everything you need for the project you choose.

The work you turn in will be

☐ one set of Fiddling With Folklore worksheets (team effort)

☐ one individual project

When you need help, see your teacher as soon as you finish Job No. 2 to have your work checked.

Try to finish your study by

Turn in the finished work to 200

LITERATURE
Fiddling with Folklore

Teacher Information

Grade 6; Part One for a team of two to four students; Part Two for individual work, with possible pairing for certain projects.

Time: 5 to 7 periods for part one; 5 periods and up for part two, depending on the project selected.

IMC Information

Study: Cover and 9 pages.

Consumables: Worksheet (2 sides); World outline maps.

Add'l teacher info: Teacher's Guide, 5 pages.

Add'l material: Fiddling with Folklore cards, cataloged into the library.

11/75

FIDDLING WITH FOLKLORE

Teacher's Guide

Objectives

"Part One: Team Project" is planned so that each student who completes this section will be able to do all of the following:

(1) write a definition of folklore which includes the essential idea that folklore is the product of a group of people;
(2) name two stories which are folklore and two which are not;
(3) give one example of a folk tale or theme which is found in more than one country, name at least two of those countries, and locate the countries named on a world map;
(4) name at least one collector of folklore.

"Part Two: Individual Project" permits each pupil to choose an aspect of folklore which he prefers to explore and to select an oral, written or visual output.

Job Nos. 1 and 2

The team's definition of folklore should be checked before the team moves on to Job No. 3. The definition should include the idea that folklore is the product of a group of people, handed down by word of mouth. In Job No. 2 the students should have identified "The Seeds and the Wheat" as folklore because the author is unknown.

Job No. 3 (Cards in pockets illustrated with moon)

These job cards introduce folklore items which list an "author," however, the apparent author is either a collector or re-teller. If children ask about this discrepancy with the previous activity, direct them to the "Objection" section in Job No. 3.

The library call number is used as to indicate whether the items on the job cards are folklore or not. Folk tales have a call number beginning 398. Fiction books, of course, have letters only--no numbers. Children may be surprised to find folk tales in the nonfiction section, which they may think of as "true." If they ask about this, direct them to "Another Objection" in Job No. 3.

The real distinction between fiction and folklore is, of course, its authorship. The distinction between the author who creates and the folklore collector or re-teller is developed under the heading "Objection" in Job No. 3.

The team should be able to reach an answer similar to this:

> The author of a folklore book collects or retells folk tales. He does not make up the stories himself.

For your reference, in case any of your students encounter these problems:

(1) Easy book or picture book sections often include composed stories and folklore and sometimes poetry and factual nonfiction as well.

(2) Some folk literature is given other Dewey numbers than 398. For example, myths are found in the 290's, epics such as The Iliad or the stories of Rama are found in the 800's, and folksongs are found in the 780's.

Job No. 4 (Cards in pockets illustrated with star)

The items on the cards are thought to be unambiguous. Nevertheless, students may be confused if they find statements that, for example, Rudyard Kipling used folklore ideas, yet find his works classed as fiction. the literary writer who weaves folklore ideas into new stories is not, however, a folklorist. Students should resolve any such confusion by referring back to their definition of folklore.

Job No. 5 (Cards in pockets illustrated with dwarf)

This last task introduces a new aspect of folk tales--their geographic distribution. Green task cards include at least one version which is available in recorded form.

The stories and countries of origin for each card are listed below:

5-1 Sleeping Beauty (France)
Briar Rose (Germany)

5-2 Three Sillies (England
Clever Elsie (Germany)
Lutoniushka (Russia)

5-3 Henny-Penny (England)
Chicken-Licken (United States)
The Hare that Ran Away (India)

5-4 The Twelve Months (Czechoslovakia)
Toads and Diamonds (France)

5-5 Seven Simeons (Russia)
The Five Chinese Brothers (China)
How Six Men Traveled Through the Wide World (Germany)

5-6 The Ram and the Pig Who Went into the Woods (Scandinavia)
The Bremen Town Musicians (Germany)
Jack and the Robbers (United States)

Answer Cards for Job No. 5: Continued

5-7 Cinderella (France)
Aschenputtl (Germany)
Ashputtel (U.S.)
Tattercoats (England)
Princess Hotaru (Japan)
Liisa and the Prince (Finland)

5-8 Gone is Gone (Bohemia)
The Husband Who was to Mind the House (Scandinavia)

5-9 Tom Tit Tot (England)
Rumpelstiltzkin (Germany)

5-10 Dick Whittington and His Cat (England)
The Priceless Cats (Italy)
Three Kopecks (Russia)

5-11 Jack and the Beanstalk (England)
The Bee, the Harp, the Mouse and the Bum-Clock (Ireland)
Jack and the Bean Tree (U.S.)

5-12 The Woodcutter of Gura (Ethiopia)
The Three Sneezes (Switzerland)

5-13 Lazy Jack (England)
Epaminondas and his Auntie (U.S. Negro)
Clever Hans (Germany)

5-14 Mr. Vinegar (England)
Gudbrand-on-the-Hillside (Norway)

5-15 The Gingerbread Boy (U.S.)
The Wee Bannock (Scotland)
The Pancake (Norway)
Johnny-Cake (England)

Checktest or Conference

After each team has completed Part One of Fiddling with Folklore, a Conference or test should be arranged to see whether the objectives for Part One have been met. You may want to suggest to reluctant writers that they tape, rather than write, their responses to test questions.

SUGGESTED CHECKTEST

1. Complete this sentence with a definition:

Folklore is ____

____

2. Give the names of two different folk tales.

(1) ____

(2) ____

3. Give the names of two stories or books which are not folk tales. If you can, also give the author's name for each.

(1) ____

____

(2) ____

____

4. Think of a folk tale which is found in more than one country. Then fill in the blanks in the following sentences:

A folk tale called ______________________ is found in the country of ______________________. Almost the same story, under the name ______________________ is found in the country of ______________________.

5. Give the name of a person who has collected folk tales.

____

If you can, tell in what country or area this collector worked.

____

Part Two: Individual Project

This part of Fiddling with Folklore gives students an opportunity to explore further the varieties of folklore and to respond through oral, written or nonverbal expression. The student's pamphlet lists fifteen projects. Note that the last project suggestion is that the student plan and obtain your approval for his own project idea.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Five Boys in a Cave by Richard Church

John had only two weeks left of summer vacation when he discovered the cave. Here at last was an adventure to share with his new friends. It must be planned carefully and secretly for their lives could be in danger. You will read this suspenseful story and do the work checked below for this book study.

Materials you will need are

** Your copy of this contract. . . Take one from the ICES file.

**Your copy of the study. . . Check it out from the ICES file.

**A copy of the book Five Boys in a Cave by Richard Church

**A Vocabulary bookmark if checked by your teacher

**The Cave Mystery Message. . .Take one from the ICES file.

**lined paper

**two sheets of 12"x18" drawing paper

**pencil

**crayons for coloring your maps (if you wish)

**other materials as required by the activity you choose.

The work you turn in will be

☐ Vocabulary Bookmark
☒ Character Study Change
☒ Paragraph on Fear
☒ Two Maps
☒ A Cave Mystery Message
☐ An Activity

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Five Boys in a Cave by Richard Church

Teacher Information

Grades 4-6; for one student

Time: Approximately three weeks

Assignment: Be sure to mark the box on the contract if you wish the student to do a bookmark or an activity. The student is directed to confer with a teacher beginning his chosen activities.

Correction sheet for Cave Mystery Message:

Message: George, Meet me at the cave entrance and we will explore.
Bring your equipment.

1. Antonym for cheerful: doleful
2. Synonym for curious: inquisitive
3. Synonym for bewildered: nonplussed
4. Synonym for started: initiated
5. Synonym for irritable: peevish
6. Antonym for concentrated: diluted
7. Synonym for iridescent: prismatic
8. Antonym for orderly: chaotic
9. Antonym for joyous: lugubrious
10. Synonym for disengage: extricate
11. Antonym for backward: precocious
12. Synonym for reason out: speculate
13. Antonym for security: anxiety
14. Antonym for inception: termination
15. Synonym for congeal: coagulate
16. Antonym for constricted: distended
17. Antonym for pliable: obstinate
18. Antonym for large: diminutive
19. Synonym for celebration: jubilation
20. Synonym for offered:proffered
21. Synonym for desecration: sacrilege
22. Antonym for admitted: banished
23. Synonym for diminishing: dwindling
24. Synonym for charmed: bewitched

IMC Information

Study: Cover and 6 pages

Consumables: Vocabulary bookmark
Cave Mystery Message Sheet (2 sides)

Commercial material: Book from John Day Company, Inc.
666 Fifth Avenue
New York, N.Y. 10019

Price: $6.95

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Flip by Wesley Dennis

An interesting story about a horse! You will read this study and write answers to six questions or activities.

Materials you will need are

- **your copy of this contract . . . You will find this in the ICES file.
- **a copy of the study . . . You will find it in the ICES file.
- **the book . . . You will find it in the easy book section of the library under the call number ED.
- **lined paper
- **drawing paper
- **a pencil
- **crayons

The work you turn in will be

☐ your answers to the questions and activities

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Flip by Wesley Dennis

Teacher Information

Grade: 2 for one student

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide).

Teacher answers to questions in the study:

2. Go over vocabulary.
3. Yes
4. Flip
5. Cross the brook.
6. Solves the problem himself.

IMC Information

Study: Cover and 2 pages.

Commercial material: Paperback book from Viking Press
625 Madison Avenue
New York, N.Y. 10022

Price: $0.95

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be French and Indian War and Revolution

You will choose a fiction book to read from the list at the end of the study.

Write which book you have chosen here:

Title____Author________________________________

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of the study...Check one out from the ICES file.
**the book you choose to read...If you find it in the Media Resource Center, be sure to check it out.

**a vocabulary bookmark if checked...Take one from the ICES file.
**a Time Line (U.S. 1755-1790)...Take one from the ICES file.
**if checked below, a Character Chart ...Take one from the ICES file.

**materials for activities vary...Be sure you can get everything you need before you begin your activity.

The work you turn in will be

☒ Time Line Chart
☐ Character Chart #4
☐ Bookmark (list of new words)
☒ Activity number____.

When you need help, see

Be sure to confer with a teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LITERATURE

French and Indian War and Revolution

Teacher Information

Grades 4-6; for one student
Time: Approximately 10 to 15 periods.
Assignment: Be sure to check the boxes on the contract if you want the student to do a character chart and/or a bookmark (vocabulary). The student is directed to confer with a teacher before beginning his chosen activity. This study may be assigned more than once, selecting a different book each time.

IMC Information

Study: Cover and 5 pages.

Consumable material: Time Line Chart, Bookmark, Character Chart #4.

Commercial material: The student will probably need to go to the library to get his book.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be From the Mixed-up Files of Mrs. Basil E. Frankweiler
by E. L. Konigsburg

Claudia and Jamie have an exciting time while living in the Metropolitan Museum of Art.

You will read the book, make a bookmark, do a Character Chart #2, a simile puzzle and one or more activities of your choice.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**your copy of this study...Take one from the ICES file.
**a copy of the book From the Mixed-up Files of Mrs. Basil E. Frankweiler...You will find it in the Media Resource Center under the call number KON.
**a bookmark...Take one from the ICES file.
**a Character Chart #2...Take one from the ICES file.
**a Simile Puzzle Answer Sheet...Take one from the ICES file.
**pencil

The work you turn in will be

☒ Vocabulary bookmark

☒ Character Chart #2

☒ Simile Puzzle Answer Sheet

☐ Activity number _____

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

From the Mixed-Up Files of Mrs. Basil E. Frankweiler by E. L. Konigsburg

Teacher Information

Grades 4 to 6 for one student

Time: 5 or 6 periods

Assignment: After the rest of the study has been completed discuss with the student the activity which he has chosen. Write the number of the activity on the front of his contract.

Simile Puzzle Answers

1. Their stomachs
2. The paper
3. Claudia's heart
4. Claudia
5 Jamie
6. A statue
7. To bind up energy
8. Ideas drift
9. Homesickness
10. They felt
11. Claudia's whisper
12. Mrs. Frankweiler's eyes

IMC Information

Study: Cover and 6 pages.

Consumable material: Bookmark, Character Chart #2, Simile Puzzle Answer Sheet.

Additional teacher information: Answer key to consumable Simile Puzzle Answer Sheet.

Commercial material: The book can be purchased from Atheneum Pubs., 122 E. 42nd Street, New York, NY 10017, $1.50 paperback, $6.95 hard bound.

Processing: Catalog the book into the library.

4/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Fun For All

To begin this study you will find the Literature Sampler in your Media Resource Center. The fifth section of the sampler is called Fun For All. There you will find a group of cards describing exciting fun stories. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ______________________

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the Literature Sampler...You will find it in the Media Resource Center under the call number KS-028.5-L.
**a copy of this study...Check it out from the ICES file.
**the book you are going to read...Be sure you check it out from the Media Resource Center.
**you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project
☒ your personal project
☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher or MGM aide before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Fun For All

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover and 3 pages.

Commercial material: Literature Sampler kit from Learning Research Associates, 1510 Broadway, New York, NY 10036, at $54.50 without books.

Processing: Catalog kit into the library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Gilberto and the Wind by Marie Hall Ets

An interesting book about the wind. It takes place in South America. You will answer some questions, do some word games and an activity depending on which ones your teacher and you decide you should do.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Take one from the ICES file.
- **the book Gilberto and the Wind...You will find it in the Media Resource Center under the call number E / E
- **paper and pencil
- **drawing paper and crayons *if* activity is checked

The work you turn in will be the projects checked below.

☐ answers to the Questions.

☐ answers to the Word Games.

☐ your answers and pictures to the Activity.

When you need help, see your teacher.

Try to finish your study by

Turn in the finished work to

LITERATURE

Gilberto and the Wind by Marie Hall Ets

Teacher Information

Grade 2 for one to four students.

Time: Approximately one to three periods.

Assignment: Be sure to check which projects are to be done and what work is to be turned in.

IMC Information

Study, cover and 2 pages.

Commercial material: The book Gilberto and the Wind, paperback from Viking Press, Inc., 625 Madison Avenue, New York, NY, 10022, at $.95 ea.

Processing: Catalog book into the library.

7/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

The Great Brain by John D. Fitzgerald

You will read the book The Great Brain and do the following activities: write an adventure story, answer some questions, analyze the Great Brain's character, do an activity and do some things with words. Your teacher may also want you to make a bookmark.

Materials you will need are

** your copy of this contract...Take one from the ICES file.
** a copy of this study...Check it out from the ICES file.
** the book The Great Brain...You will find it in the Media Resource Center under the call number FIT
** Materials listed in the study for your notebook...See page 1 of your study.
** Materials for activities will vary...Be sure you can get all the materials you will need before you begin your activity.
** A bookmark ...Take one from the ICES file if your teacher has checked that box below.

The work you turn in will be

☒ Your notebook containing: pictures in words, crossword puzzle, character study, story and questions.
☐ Your bookmark
☒ Your activity

When you need help, see

Try to finish your study by

Turn in the finished work to

Literature
The Great Brain by John D. Fitzgerald

Teacher Information

Grades 4-6; for one student

Time: Approximately three weeks.

Assignment: Be sure to mark the box on the contract if you wish the student to do a bookmark. The student is directed to confer with a teacher before beginning his chosen activities.

IMC Information

Study: Cover and 6 pages

Commercial material: Paperback books may be ordered from Dell Publishing Co, Inc., #1 Dag Hammarskjold Plaza, N.Y., N.Y., 10017 at $.75 ea. or hardback from Dial Press, 245 E. 47th Street, N.Y., N.Y., 10017 at 5.95 each.

Processing: Catalog the book into the library.

3/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Great Cheese Conspiracy by Jean Van Leeuwen

The exciting adventures of three mice who plan to commit the "crime of the century," the robbery of a cheese store. You will read the book, do a vocabulary bookmark, write answers to worksheets as you read the chapters and do at least two "creacheesities" from the list at the end of the study.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of this study...Get one from the ICES file.
- **a copy of the book The Great Cheese Conspiracy. Check one out from the Media Resource Center. It will be found under the call number VAN.
- **lined and blank paper.
- **pencil.

The work you turn in will be

☒ vocabulary bookmark.
☒ your completed answers to the chapter worksheets.
☒ "creacheesities" #____ and #____.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Great Cheese Conspiracy

Teacher Information

Grades 3-4; for 1 to 6 students.

Time: 10 to 12 periods.

Assignment: While this study can be done by one student it will probably be enjoyed more if several students do it at once so they can discuss it among themselves. By assigning each two chapter work sheet for a specific period of time and providing for discussion periods with or without the teacher the students can be paced so that discussions are more productive and keep the faster workers from telling what happens next.
This study requires the student to use his divergent thinking skills for the activities and requires the student to use his memory and cognition for other areas of this study.

IMC Information

Study: Cover and 13 pages.

Commerical materials: Paperback book from Dell Publishing Co., Inc., 1 Dag Hammarskjold Plaza, 245 E. 47th St., New York, NY 10017, at $.75.

Processing: Catalog book into library.

8/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Half Magic by Edward Eager.

For this study, you will read the book and then do a worksheet called Who Said That? and another one called Who Am I? If your teacher has checked below, you will do a vocabulary bookmark, and character chart #1. Then you will choose one activity to do from the list of six.

A magic talisman takes Jane, Mark, Katharine and Martha back to the time of King Arthur where they become involved in amazing adventures with Merlin, Sir Lancelot, and Morgan le Fay.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check it out from the ICES file.
- **a copy of the book Half Magic...You will find it in the Media Resource Center under the call number EAG.
- **worksheet for Who Said That? and Who Am I?...You will find it filed under Half Magic in the ICES file.
- **bookmark, and character chart #1, if checked below. You will find them in the ICES file.
- **one or more sheets of lined paper.
- **some activities require additional supplies...Be sure you will be able to get everything you need before you begin your activity.

The work you turn in will be

☐ Bookmark for vocabulary study.

☒ Who Said That?

☒ Who Am I?

☐ Character Chart #1.

☒ One or more completed activities.

When you need help, see

Check with your teacher before you begin working on the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE
Half Magic, by Edward Eager

Teacher Information

Grades: 3-5; for one student.

Time: 5-8 periods for required work; 2-6 periods for the activity.

Assignment: Be sure to check if you want the student to do the vocabulary bookmark or the character chart.

IMC Information

Study: Cover and 5 pages.

Consumables: Who Am I? and Who Said That?(run back to back).

Additional Teacher Information: Answer key to consumables.

Commercial material: Paperback from Harcourt Brace Jovanovich, Polk and Geary, San Francisco, CA 94109, 75¢.

Processing: Catalog book into library.

Rev. 4/76

HALF MAGIC

4-4

WHO SAID THAT?

Many interesting and exciting things have been said throughout this story. Can you remember who said what?
Read each statement and write next to it the character you think said it.

SEE IF YOU CAN GET THEM ALL!

		Who said it?	What page
1.	"Here I go talk, talk, talk for the next thirty seconds."	Carrie	63
2.	"Let me go you bully!"	Jane	149
3.	"Magic never happens, not really."	Mark	8
4.	"So young and yet so wicked."	Merlin	100
5.	"Jane, you must not be so money-grubbing."	Mother	29
6.	"Your magic is a mere nothing compared to mine, elfspawn!"	Morgan le Fay	78
7.	"Dibs on the nickel."	Jane	10
8.	"I haven't had fractions yet."	Martha	42
9.	"It would really be a good deed if somebody knocked Sir Launcelot down for a change."	Katharine	92
10.	"I wish I'd never heard of that charm."	Jane	119
11.	"One of the least admirable things about people is the way they are afraid of whatever they don't understand."	Mr. Smith	130
12.	"Eye of newt, toe of frog."	Katharine	10
13.	"Flee churls! Away fiends! Begone demons!"	Sir Launcelot	76

HALF MAGIC

Key

WHO AM I?

Read each riddle carefully and write on the blank the name that identifies it.

A name may be used only once.

1. I like to go to movies until I get there, then I hate it. Martha
2. I work in a bookstore. Mr. Smith
3. I like history and poetry. I don't like being the middle child. Katharine
4. I work for the other newspaper, the one almost nobody on the block takes. Mother
5. My friends disappeared mysteriously one day from camp because of a wish I made. Mark
6. I had a playhouse that caught fire one day. Genevieve
7. I own a caravan of camels. Achmed
8. I like to keep a clean house. The children help with the dishes. Miss Bick
9. I created quite a stir the day I talked. Carrie
10. I had the last wish our family wished. Jane

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Harriet the Spy by Louise Fitzhugh

A marvelous story about a girl who loves to eat tomato sandwiches and also loves to spy on people including her friends. She keeps comments about the people she spies on in a notebook. At one point in the story she loses her notebook and her friends find out what she has written about them. Read this book to find out what happens then. You will read the book in nine Spy Assignments doing the tasks or questions which go with each assignment. You will complete character dossiers on the six main characters in the book, do an Ole Golly's Room sheet and your Spying Out Words list. You will also choose and complete one Project for Super Sleuths from the list at the end of this study. You will share your project with your group or class.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...Check one out from the ICES file.
**the book Harriet the Spy...Check it out from the Media Resource Center. It is cataloged under the call number FIT.

**six character dossier sheets...Take these from the ICES file.
**an Ole Golly's Room sheet...Take this from the ICES file.
**a Spying Out Words list. . . Take one from the ICES file.
**Calendar of Assignments and Conferences. . . Take one from the ICES file.
**Lined paper
**pencil
**crayons

The work you turn in will be

☒ completed work for the nine spy assignments
☒ six character dossiers
☒ Ole Golly's Room Sheet
☐ Spying Out Word List
☒ Your completed Super Sleuth Project # ________

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Harriet the Spy

Teacher Information

Grades 4-6 for 4-6 students

Time: 15 to 20 periods

Assignment: This is one of several studies designed for a small group of students which require more of the teacher's time than do most ICES studies in that they require the teacher (or resource aide) to meet periodically with the students for discussion and review of their work as they are doing the studies. These may be used for some students as an intermediate step toward introducing them to studies on which they must work entirely independently.

If you cannot work the time for the required meetings into your schedule do not assign this study.

It is recommended that the teacher or resource aide be familiar with this book before assigning this study. The study requires a group teacher-student conference before starting the study and after each of the nine Spy Assignments have been completed. These conferences are for reviewing new words, sharing and discussing completed work, etc. At the end of each conference set the date and time for the next one. Be sure the students enter this on their Calendar of Assignments and Conferences.

Be sure that at the conference following the fifth Spy Assignment the students look over, discuss and choose one of the Super Sleuth Projects listed at the end of their study. Have them enter the number of their project on the front of their contract. Direct them to start working on this project while completing the rest of the study. At the end of the study they are to share their project with either their group or with their class.

IMC Information:

Study: cover and 14 pages

Consumables: Calendar of Assignments and Conference for Harriet the Spy
Character Dossier
Spying Out Words List
Ole Golly's Room Sheet

Commercial materials: paper back from: Dell Publishing Company
1 Dag Hammarskjold Plaza
245 E. 47th Street
New York, N.Y. 10017
Cost: $1.50

hard cover edition from:
Harper Row Publishing Company
10 E. 53rd Street
New York, N.Y. 10022
Cost: $5.95

Processing: Catalog into library

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Harry, the Dirty Dog by Gene Zion

The adventures of a dog who runs away from home because he doesn't like to take a bath. You will read the book, write two sentences and draw a picture

Materials you will need are

- **your copy of this contract...Take it from the ICES file.
- **a copy of this study...Check it out from the ICES file.
- **the book Harry, the Dirty Dog...You will find it in the Media Resource Center under the call number E-Z.
- **a pencil and crayons
- **lined paper and drawing paper

The work you turn in will be

☒ two sentences

☒ a picture

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Harry, the Dirty Dog by Gene Zion

Teacher Information

Grades 1 and 2 for one student

Time: 1 to 3 periods

Assignment: This is one of several studies for primary students designed to *introduce* them to independent studies. They will learn to get their materials together, read their book and do only one or two simple activities. After doing several of these studies they may be assigned more complex studies requiring longer concentration and having a greater number of independent activities to be carried out. Be sure the student knows where to find the materials. Emphasize that he/she is to do the work independently by carefully following the directions in the study.

IMC Information

Study: Cover and 2 pages.

Commercial material: Order the book from Harper & Row, 10 East 53rd Street., New York, N.Y. 10022, $1.95 paperback, $3.95 hard bound.

Processing: Catalog book into the library.

5/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Henry Huggins by Beverly Cleary

Hi Kids,

You don't know me? Well, I'm a boy in the third grade who lives on Klickitat Street. I use to think nothin' very exciting ever happened to me, but from the day I found this old dog, Ribsy, things started POPPING! Things like getting a ride in a police car, raising millions of guppies, catching one thousand three hundred and ninety-five worms, having a whole can of green paint fall on my head and there's more!! Come along with me and join in all the excitement.

Your faithful friend,
Henry

P.S. There's some neat things to do in this study. H.H.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**a Henry Huggins Character Identification Sheet...Get one from the ICES file.
**the book Henry Huggins...Check it out of the Media Resource Center. You will find it under the call number CLE.
**lined paper, pencil and crayons.

The work you turn in will be

☒ your work for each chapter

☒ a DIVINELY DAZZLING DAZE project

☒ your Character Identification Sheet

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Henry Huggins

Teacher Information

Grades 3-5; for one student.

Time: 8 or more periods.

IMC Information

Study: Cover and 12 pages.

Consumables: Henry Huggins Character Identification Sheet (2 sides).

Commercial materials: Book available from Morrow, William & Co., Inc., 105 Madison Ave., New York, NY 10016, at $6.50. Also available in paperback at $1.50.

Processing: Catalog book into library.

8/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Hobbit, by J.R.R. Tolkien.

This is a consumable book study. You will write directly on the pages. If you wish, you may make a game for The Hobbit, after you have completed the study.

Bilbo, the Hobbit, was an ordinary fellow, short, fat, and barefoot, who was very comfortable in his tunnel home. But Gandalf chose him to go on a quest against the powers of evil.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**a copy of the book, The Hobbit...You will find it in the Media Resource Center under the call number TOL.
**a copy of The Hobbit book study...Take one from the ICES file.
**pencil, paper and art supplies...Be sure you will be able to obtain all the materials you need before you begin making the game.

The work you turn in will be:

☒ Your completed book study.
☐ A Hobbit book game.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Hobbit, by J.R.R. Tolkien

Teacher Information

Grades: 6; for one to four students.

Time: 20 periods for the basic work; 5-10 periods to make the game. (optional)

Assignment: Be sure to check the box for the game making activity if the student is to do it.

IMC Information

Study: Cover and 11 pages.

Consumable: The entire study is consumable; run back to back.

Commercial material: Paperback from Ballantine Books, 201 E. 50th Street, New York, N. Y. 10022, $1.25.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Homer Price by Robert McCloskey

Six funny stories about a boy everything happens to. You will read the book, make a vocabulary bookmark, a Character Chart #2 and do at least two of the activities listed.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.
**a copy of this study . . . Take one from the ICES file.
**the book . . . You will find it in the Media Resource Center under the call number MCC.
**lined paper or drawing paper depending on which activities are selected
**pencil
**crayons (for some activities)
**other materials for some activities.

The work you turn in will be

☐ vocabulary bookmark
☐ character chart #2
☐ activity numbers ______ and ________.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Homer Price by Robert McCloskey

Teacher Information

Grades: 3-6 for one student

Time: 15 or 16 periods.

Assignment: Discuss with the student whether or not you feel the particular activities the student has selected are appropriate for him/her. Assist the student in locating any needed materials.

IMC Information

Study: Cover and 3 pages.

Commercial materials: book by Robert McClosky from:

Viking Press, Inc.
625 Madison Avenue
New York, N.Y. 10022

Price: $0.95

Processing: Catalog into library.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Island of the Blue Dolphins by Scott O'Dell

Karana survives alone for 18 years on a small island off the coast of California.... an exciting tale of courage and self-reliance. You will read the story, choose and do two from a list of eight "Dolphin Writings," do "Survival Match" and choose one or more activities to do from a list of nine Independent Creative Activities in this study.

Materials you will need are

- **your copy of the contract...Take one from the ICES file.
- **a copy of this study...You may check it out from the ICES file.
- **the book...You will find this in the Media Resource Center under the call number ODE.
- **pencil and lined paper.
- **additional material as needed for different activities...Be sure you can get the materials you need before starting the activities.

The work you turn in will be

☒ Dolphin Writings ________________________ (list numbers)

☒ Survival Match Answers

☒ Independent Creative Activities ________________________ (list numbers)

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Island of the Blue Dolphins **by Scott O'Dell**

Teacher Information

Grades 5-6; for one student.

Time: **8 or more periods depending on how many activities are selected.**

Assignment: **Conference with the student to determine which** Dolphin Writings and Independent Creative Activities the student has chosen. Have him list these numbers on the front of his contract.

IMC Information

Study: Cover and 4 pages.

Additional teacher information: Answer sheet for "Survival Match" worksheet

Commercial material: The book may be ordered from Houghton Mifflin Co., 2 Park St., Boston, MA 02107 or 551 Fifth Ave., New York, NY 10017, at $5.95. Also available in paperback from Dell Publishing Co., Inc., 1 Dag Hammarskjold Plaza, 245 E. 47th St., New York, NY 10017, at $.95.

Processing: Catalog book into library.

8/77

Answer Key - Survival Match

A

abalones - food
yucca fibres - skirt
otter (skin) - cape
whalebone - necklace
reeds - basket
sea elephant teeth - necklace

B

shell - earring box
seeds - food
pitch - waterproofing
wood - arrow shafts
feathers - ends of arrow shafts
whale ribs - fence

C

cormorant feathers - skirt
bone - earrings
brush - woven mat
hollowed stones - cooking utensils
herbs - medicine
bull kelp - net

D

seal (sinews) - string
dried saisal fish - light
cactus lobe - juice
roots - food
brush - fire
abalone shell - fishhook

E

black stone - knives
seal (skin) - sandals
trees - poles
dry seaweed - bed
sea elephant teeth - spear tips
gull eggs - food

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Inch by Inch by Leo Lionni

The tiny green inchworm fools all his enemies. You will read the book, write a sentence and make a book jacket.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES file.

**a copy of the study . . . You will find it in the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EL

**lined paper

**drawing paper

**a pencil

**crayons

The work you turn in will be

☐ your sentence

☐ your book jacket

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Inch by Inch by Leo Lionni

Teacher Information

Grades 1 and 2 for one student

Time: 1 or 2 periods

Assignment: This is one of several studies for primary students designed to introduce them to independent studies. They will learn to get their materials together, read their book and do only one or two simple activities. After doing several of these studies they may be assigned more complex studies requiring longer concentration and having greater number of independent activities to be carried out. Be sure the student knows how to find his/her material. Emphasize that he/she is to do the work independently.

IMC Information

Study: Cover and 1 page.

Commercial material: Book from: Astor-Honor, Inc.
48 E. 43rd Street Price: $4.95
New York, N.Y. 10017

Processing: Catalog into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Is Reading Your Bag?

With your teacher's permission, you may choose any fiction book to read for this study. You will also do whichever of the activities are checked below.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a fiction book approved by your teacher for this project...You will be able to find a good one in the Media Resource Center.
- **a copy of this study...Check one out from the ICES file.
- **worksheets as checked below...Take what you need from the ICES file.
- **paper and pencil.
- **materials will vary...Be sure you will be able to get all the materials you need before you begin your activity.

The work you turn in will be

- ☐ bookmark for vocabulary work
- ☐ character chart (choose the one that fits your story the best)
- ☐ story chart
- ☐ cartoon strip
- ☐ settings
- ☐ sales talk
- ☐ activity

When you need help, see your teacher. Be sure to have your teacher approve the fiction book you would like to read for this study. Also, check with your teacher before you begin your follow-up activity, if you choose one.

Try to finish your study by

Turn in the finished work to

LITERATURE
Is Reading Your Bag?

Teacher Information

Grades 3-6; for one student.

Time: At least 10 periods; additional time for activity, if one is selected.

Assignment: The student should have done at least one literature study related to a specific book before trying this general contract. This study may be used with a complete book or with a fictional short story as in a reader. Be sure to check which of the activities you want the student to complete. This study may be repeated any number of times, using a different book. You may vary the requirements and/or follow-up activities each time the study is repeated. Be sure to check the boxes of the activities you want the student to complete.

IMC Information

Study: Cover and 5 pages.

Rev. 5/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be James and the Giant Peach by Roald Dahl

James was most unhappy living with his mean old aunts on top of a hill. Then one day a mysterious old man gave him something magic that changed his whole life. In this study you will read the book, do a character chart, do a word search, a crossword puzzle and write another chapter to the book. Then you will choose one activity.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of this study...You may check it out from the ICES file.
- **the book James and the Giant Peach...You will find it in the Media Resource Center with the call number DAH.
- **a copy of the Crossword Puzzle Sheet...Take one from the ICES file.
- **a copy of the Word Search...Take one from the ICES file.
- **paper and pencil and materials needed for the activity you choose.
- **Character Chart #3...Take one from the ICES file.

The work you turn in will be

- ☒ Character Chart #3 completed
- ☒ Crossword puzzle
- ☒ Word Search puzzle
- ☒ Extra chapter - Write an adventure
- ☒ One activity

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

James and the Giant Peach by Roald Dahl

Teacher Information

Grades 3 - 5; one student

Time: Approximately 5 to 8 periods for basic work and 2 to 6 periods for the activity.

SOI :
Character Chart = memory - convergent
Crossword puzzle = cognition
Word Search = cognition
Write an ^dventure = Divergent Production
Activities = Divergent Production

IMC Information

Study: Cover and 5 pages

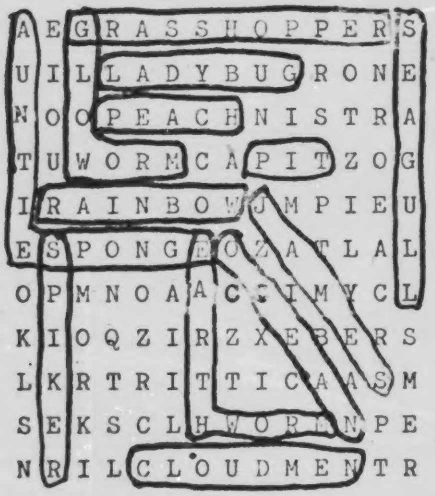
Consumables: 2 work sheets - Crossword Puzzle
Word Search

Additional teacher information: Crossword Puzzle Key
Word Search Key

Commercial material: The book may be ordered from Alfred A. Knopf, Inc. 201 E. 50th Street, New York, NY, 10022 at $5.99 each.

Processing: Catalog book into library.

Word Search Key



A	E	G	R	A	S	S	H	O	P	P	E	R	S
U	I	L	L	A	D	Y	B	U	G	R	O	N	E
N	O	O	P	E	A	C	H	N	I	S	T	R	A
T	U	W	O	R	M	C	A	P	I	T	Z	O	G
I	R	A	I	N	B	O	W	J	M	P	I	E	U
E	S	P	O	N	G	E	O	Z	A	T	L	A	L
O	P	M	N	O	A	A	C	C	I	M	Y	C	L
K	I	O	Q	Z	I	R	Z	X	E	B	E	R	S
L	K	R	T	R	I	T	T	I	C	A	A	S	M
S	E	K	S	C	L	H	W	O	R	M	N	P	E
N	R	I	L	C	L	O	U	D	M	E	N	T	R

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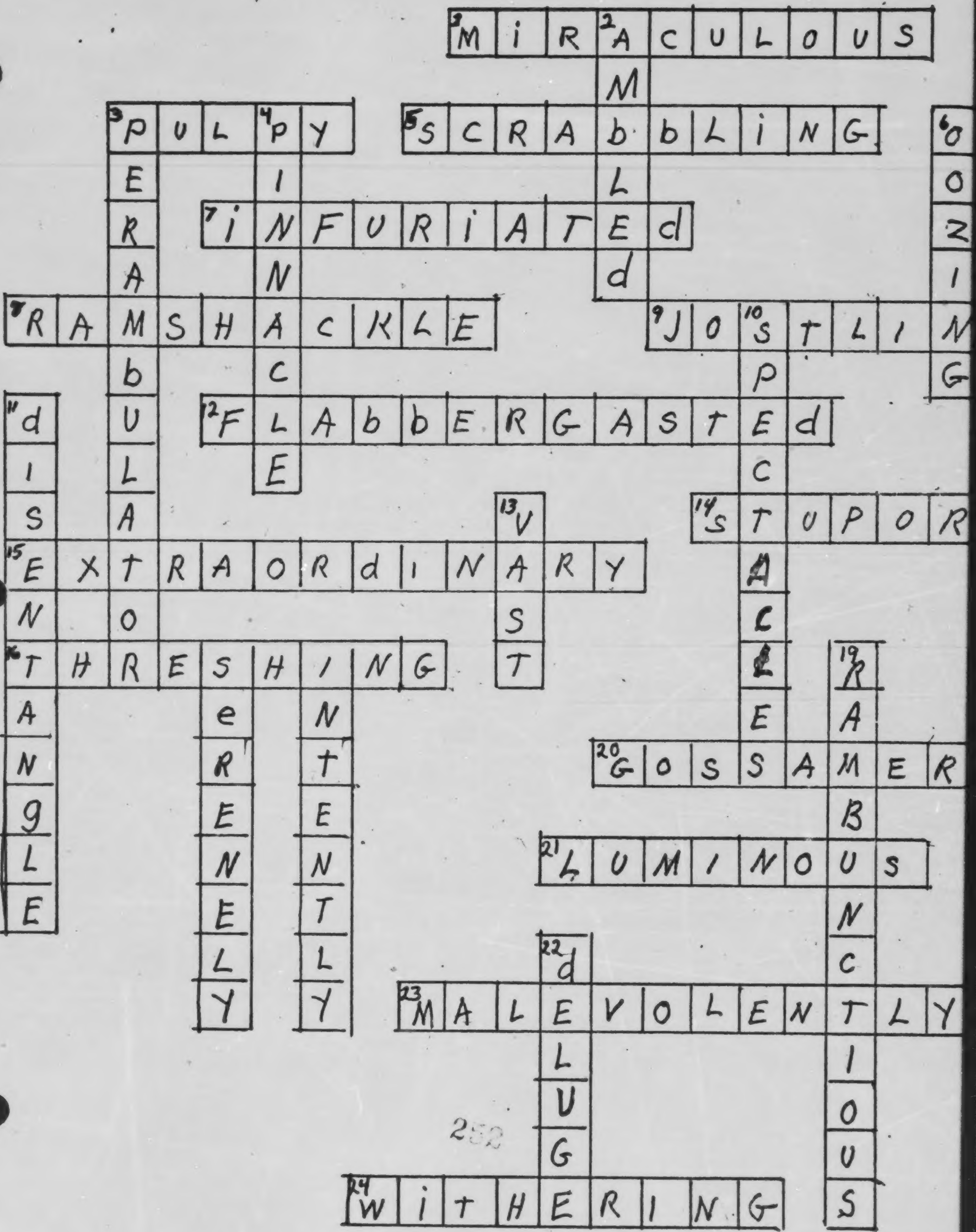
James and the Giant Peach Crossword Puzzle Key


1 MIRACULOUS
2 AMBLED
3 PULPY
3 PERAMBULATOR
4 PINNACLE
5 SCRABBLING
6 OOZING
7 INFURIATED
8 RAMSHACKLE
9 JOSTLING
10 SPECTACLES
11 DISENTANGLE
12 FLABBERGASTED
13 VAST
14 STUPOR
15 EXTRAORDINARY
16 THRESHING
SERENELY
INTENTLY
19 RAMBUNCTIOUS
20 GOSSAMER
21 LUMINOUS
22 DELUGE
23 MALEVOLENTLY
24 WITHERING

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Keys to Understanding Mankind.

You will choose one or two cards to help you think about what an author is saying in a fiction book or story. List here the material you will use.

Book or story______________________________card(s)____________________

Write down your response to each card--probably about one page for one card.

Optional: ☐ Make a tape recording instead of a written report ☐ Compare two books or stories

☐ Work on your activity with a partner who has read the same book or story, or who will read it at the same time you do

Take time to THINK about these cards and to write down or say carefully what you decide.

Materials you will need are

your copy of this contract...Take one from the ICES file.

**the book or story you will read.

**the Keys to Understanding Mankind cards. You will find the set in the Media Resource Center under the call number KS-808.3-K.

**paper and pen or a blank tape cassette and recorder.

The work you turn in will be

your written report or tape cassette.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Keys to Understanding Mankind

Teacher Information

Grades 4-6; one or two students

Time: One or two periods per activity

Assignment: This is a series of reading task cards intended to develop thinking processes, reinforce reading skills, and introduce students to basic philosophical concepts about mankind. This study must be assigned in combination with a fiction book or short story. The student will usually do only one activity to go with one story, although more than one may be possible. The study includes 55 cards and is a good one to repeat a number of times. An activity could be repeated for a different book, or to compare two stories or books. You may want to assign, or to let the student choose, the reading material and/or activity card(s).

RELATIONSHIPS OF TASK CARDS TO READING SKILLS

Task Card No.	Skill
1, 2	Examining Details
3, 4, 5	Sequence
6, 7, 8, 9	Main Idea
10, 11, 12, 13	Part-Whole Relationships
14, 15, 16, 17	Characterization
18, 19, 20, 21, 22, 23	Classifying
24, 25, 26, 27	Cause and Effect
28	Synthesizing
29, 30, 31, 32, 33, 34, 35, 36	Interpreting
37	Predicting
38, 39, 40, 41, 42, 43	Evaluating
44, 45, 46, 47	Describing
48, 49	Translating
50, 51, 52, 53, 54, 55,	Creating

IMC Information

Commercial material: Card set available from Creative Teaching Press, Monterey Park, CA; or Marie's Educational Materials, 171-173 So. Murphy Avenue, Sunnyvale, CA 94086 at $5.95.

Processing: Remove two cards of instructions to teachers. Catalog the card set into the library.

8/75

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Leo, the Late Bloomer, by Robert Kraus

Read this book to find out what a late bloomer is. You will read the book, answer one question, draw on picture and write one sentence of your own.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **the book Leo, the Late Bloomer...You will find it in the Media Resource Center under the call number E-K.
- **pencil and crayons
- **lined paper and drawing paper

The work you turn in will be

☒ your answer to the question in this study

☒ your picture

☒ your sentence

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Leo, the Late Bloomer by Robert Kraus

Teacher Information

Grades 1 and 2 for one student

Time: 1 to 3 periods

Assignment: Discuss with the student what he/she is to do. Make sure he/she knows how to find the materials. One of the intents of this study is to start the student on the road to independent work habits. Praise the student for his/her work when it is turned in.

IMC Information

Study: Cover and 2 pages

Commercial material: The book can be obtained from E. P. Dutton, 201 Park Ave. S., New York, N.Y., 10003, $1.95 paperbound, $5.95 hard bound.

Processing: Catalog into the library.

5/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

The Lion, The Witch, and The Wardrobe by C. S. Lewis

Four children find their way into the land of Narnia through the back of a huge wardrobe in an old English house. They find the land under the influence of the wicked Snow Queen who controls the weather so that it is "always winter and never Christmas".

When you finish the book you will do an idiom sheet, a creative writing paper, and a worksheet, "Who Said That?" Your contract may include a vocabulary bookmark and a character chart, if checked by your teacher. Afterwards you will do one activity.

Materials you will need are

- **Your copy of this contract...Take one from the ICES file.
- **Your copy of this study...Check it out from the ICES file.
- **A copy of the book...You will find it in the Media Resource Center under the call no. LEW.
- **A vocabulary bookmark and Character Chart #2 if your teacher has checked them...Take one of each from the ICES file.
- **"Who Said That?" worksheet...Take one from the ICES file.
- **Materials for activities as needed...Be sure that you will be able to get all the materials you need before you begin.

The work you turn in will be

☐ Vocabulary bookmark
☐ Character Chart #2
☒ "Who Said That?" worksheet
☒ Idiom sheet
☒ Activity number______
☒ Creative Writing activity number______

When you need help, see

Try to finish your study by

257

Turn in the finished work to

LITERATURE

The Lion, The Witch and The Wardrobe by C. S. Lewis

Teacher Information

Grades 4-6; for one student

Time: 5 to 8 periods for basic study; 2 to 6 periods for activity

Assignment: Be sure to check the box for bookmark and/or character chart if you would like the student to complete those activities.

IMC Information

Study: Cover and 6 pages.

Consumables: Who Said That? worksheet, Character Chart #2, vocabulary bookmark

Additional teacher information: Answer key to Who Said That? worksheet

Commercial material: The book can be purchased from Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022, at $1.25 each.

Processing: Catalog the book into the library.

4/77

The Lion, The Witch and The Wardrobe

WHO SAID THAT?

Fill in the blanks below with the name of the character who made the quotation. You may use a name more than once or not at all.

Susan
Peter
Lucy
Edmund
Professor
Mrs. Macready
White Witch
Aslan
Mr. Tumnus
Mr. Beaver
Mrs. Beaver
Father Christmas

---

1. Mrs. Macready "And please remember you're to keep out of the way whenever I'm taking a party over the house."

2. Professor "I should not be at all surprised to find that another world had a separate time of its own; so that however long you stayed there it would never take up any of our time."

3. Aslan "Never forget to wipe your sword."

4. White Witch "You know that every traitor belongs to me as my lawful prey and that for every treachery I have a right to a kill. His life is forfeit to me. His blood is my property."

5. Mr. Beaver "When you meet anything that's going to be Human and isn't yet, or used to be Human once and isn't now or ought to be Human and isn't, you keep your eyes on it and feel for your hatchet."

6. Professor "Once a King in Narnia, always a King in Narnia. But don't go trying to use the same route twice...It'll happen when you're not looking for it."

7. White Witch "Silence, fool!"

8. Lucy "It was just after breakfast when I went into the wardrobe, and I've been away for hours and hours, and had tea, and all sorts of things have happened."

9. Peter "Well, of all the poisonous little beasts..."

10. Susan "Oh, surely not. It would be too awful for him. Think how you'd feel if you were he."

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Littles by John Peterson

This story is about interesting little people with tails who have a problem when the house in which they live is invaded by mice. Read this book to find out what happens. There are five parts to this study. For each part you will list new words, answer some questions and draw some pictures. When you have finished the book you will choose one more thing to do from the list at the end. Have fun!

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check one out from the ICES file.
**a copy of the book...Check one out of the Media Resource Center. You will find it under the call number PET.
**a Littles' and Biggs' Word List...Take one from the ICES file.
**Photo Album pages 1, 2, 3 and 4 (two sheets)...Take them from the ICES file.
**lined paper.
**blank paper.
**a pencil and crayons.

The work you turn in will be

☒ your answers to the questions.
☒ your Littles' and Biggs' Word List.
☒ Photo Album pages 1, 2, 3 and 4.
☐ other work with words asked for by your teacher or aide.
☒ the thing you choose to do at the end of the study.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Littles by John Peterson

Teacher Information

Grade 2; for 4 to 6 students.
Time: 12 or more periods depending upon speed of the students and/or additional assignments given by the teacher.
Assignment: This is one of several studies designed for a small group of students which require more of the teachers time than do most ICES studies in that they require the teacher (or resource aide) to meet periodically with the students for discussion and review of their work as they are doing the studies. These may be used for some students as an intermediate step toward introducing them to studies on which they must work entirely independently. If you cannot work the time for the required meeting into your schedule do not assign this study. It is recommended that the teacher or aide be thoroughly familiar with the book before assigning this study. Since this will very likely be one of the first ICES studies done by the student more guidance by the adult in charge will be needed, than for later studies. The group of students doing the study will need to meet with the teacher or aide once before starting the study and once after each of the five parts. At these group meetings vocabulary words can be discussed, questions reviewed and the story discussed. The teacher may wish to introduce the new words for each part prior to the children reading it or wait until after to see if the children have figured them out from context or by using a dictionary. You may wish to use one or the other of these methods or a combination of both for different parts of the study. Because the children will be new to these semi-independent studies the teacher or aide may wish to give additional assignments with the vocabulary words to tie the studies into the regular classroom work.

Some suggestions for using the vocabulary list are as following:

1. Classify by:
    a. words with more than one meaning
    b. nouns, verbs and adjectives
    c. number of syllables
    d. compound words
2. Illustrate
3. Look up definitions
4. Use words in sentences or stories.
5. Use as spelling words

At each meeting the teacher or aide should have the group go over the directions for the next part before sending them to work independently. This will save numerous questions and interruptions. For later studies less guidance will be required. At the initial meeting the teacher should explain that the Littles are little people with tails. You may wish to discuss tails and read the poems "Ode to the Pig: His Tail" and "In the Fashion". At the end of the study if the children have enjoyed it you may wish to tell them of other Little books by John Peterson.

The Littles Have a Wedding
The Littles Surprise Party
The Littles Take a Trip
The Littles to the Rescue

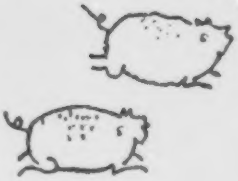
IMC Information

Study: Cover and 13 pages.
Consumables: Littles' and Biggs' Word List. Photo Album pages 1, 2, 3 and 4 (run back to back on 2 sheets).
Additional Teacher Information: The poems "Ode to the Pig: His Tail" and "In the Fashion".
Commercial materials: the book from Scholastic Book Services, 50 W. 44th St., New York NY 10036, at $2.40. Also available in paperback at $.95.
Processing: Catalog into the library.

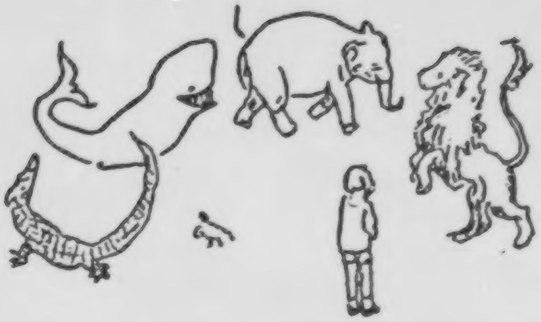
8/77

Ode to the Pig: His Tail

My tail is not impressive
  But it's elegant and neat.
In length it's not excessive—
  I can't curl it round my feet—
But it's awfully expressive,
And its weight is not excessive,
  And I *don't* think it's conceit,
  Or foolishly possessive
If I state with some aggressive-
  ness that it's the final master touch
That makes a pig complete.



WALTER R. BROOKS

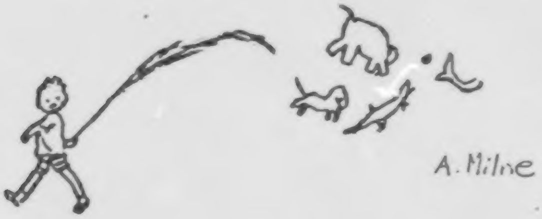


IN THE FASHION

A lion has a tail and a very fine tail,
And so has an elephant, and so has a whale,
And so has a crocodile, and so has a quail—
They've all got tails but me.

If I had sixpence I would buy one;
I'd say to the shopman, "Let me try one";
I'd say to the elephant, "This is *my* one."
They'd all come round to see.

Then I'd say to the lion, "Why, *you've* got a tail!
And so has the elephant, and so has the whale!
And, look! There's a crocodile! *He's* got a tail;
"*You've all got tails like me!*"



Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Little Witch.

You will read Little Witch, draw some pictures, write some recipes and maybe look up some new words. You will write and color on the study.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Take one from the ICES file.
- **Little Witch by Anna Elizabeth Benneth. You will find it in the Media Resource Center with the call number BEN.
- **pen or pencil and crayons.

The work you turn in will be your copy of this contract.

Keep your work record on the back. You will also turn in the completed study with its pictures and recipes.

☐ If this box is checked, also cut out the witchy bookmark on page 9 and follow the directions on page 8.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Little Witch

Teacher Information

Grades 2-3; for one student.

Time: About 10 periods.

Assignment: Be sure to check the bookmark box if you want the pupil to do the vocabulary work.

IMC Information

Study: Cover and 9 pages. The entire study is consumable.

Commercial material: The Little Witch book is from Scholastic Book Service, 50 W. 44th Street, New York, NY 10036, at 75¢.

Processing: Catalog the book into the library.

2/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Make Mine Magic.

You will select and read at least two books which have mysterious or magical adventures or episodes within them. You may choose them from the bibliography or locate others in the Media Resource Center. Not all of the books in the bibliography are to be found in the Media Resource Center. You will keep a list of all the mysterious and magic words you come across and using these words and their definitions you will make a crossword puzzle. You will also select and do three activities.

Materials you will need are

** your copy of this contract...Take one from the ICES file.
** a copy of this study...Check one out from the ICES file.
** the mysterious and magical books you select...Check them out from the Media Resource Center.
** a dictionary
** a Mysterious Magic Crossword Puzzle Grid...Take one from the ICES file,
** pencil and lined paper
** Materials for activities will vary. Before beginning your activities make sure you will be able to obtain everything you will need.

The work you turn in will be

☒ Mysterious Magic Crossword Puzzle Grid

☐ Activities number ___, ___ and ___.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Make Mine Magic

Teacher Information

Grades 3-6 for 1 student

Time: 20 periods or more depending on which books are selected. Activities will take additional time.

Assignment: Be sure to mark the activity numbers the student has chosen.

IMC Information

Study: Cover and 6 pages

Consumable: Mysterious Magic Crossword Puzzle Grid

3/77

Independent Curriculum Enrichment Studies
LITERATURE

This study is for

Date to begin is

Your study will be Make Way For Ducklings
by Robert McCloskey

Count Mrs. Mallards eggs and watch her fuzzy ducklings as they march acrcss the pages of this book. You will read the book, write two sentences, draw two pictures and make a book cover.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a copy of this study...Check one out from the ICES file.

**the book Make Way For Ducklings...You will find it in the library under the call number $\frac{E}{M}$.

**lined paper

**drawing paper

**a pencil

**crayons

The work you turn in will be

☒ your two sentences

☒ your two pictures

☒ your book cover

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Make Way For Ducklings

Teacher Information

Grades 1 and 2 for one student
Time: 1 or 2 periods
Assignment: Be sure the student knows where to find all the needed materials.

IMC Information

Study: Cover and 1 page.
Commercial materials: The book can be ordered from Viking Press, 625 Madison Avenue, New York, N.Y. 10022 for $5.95 or 95¢ for paperback edition (Seafarer)

3/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be May I Bring A Friend?

by Beatrice S. De Regniers

A little boy brings many unusual "friends" when he is invited to eat with the King and Queen. You will read the book, answer one question, write a sentence and draw a picture.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **the book May I Bring A Friend...You will find i in the easy book section of the library under the call number E D.
- **lined paper
- **drawing paper
- **a pencil
- **crayons

The work you turn in will be

☒ your answer to the question
☒ your sentence
☒ your picture

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

May I Bring A Friend?

Teacher Information

Grades 1 and 2; for one student.
Time: 1 or 2 periods.

IMC Information

Study: Cover and 1 page.
Commercial materials: The paperback book may be ordered from Atheneum Publishers, 122 E. 42nd St., New York, N.Y. 10017 at $1.25 each.

3/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Miss Bianca in the Salt Mines, by Margery Sharp.

To do this book study, you will read the book and then do a character chart and study questions. If checked below, you will also do a bookmark for vocabulary words. After you have completed that part of the study, you may choose one of the five activities listed.

How does it happen that Miss Bianca, a most unusual mouse, can get into so much trouble?

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**the book...You will find it in the Media Resource Center under the call number SHA.
**character chart #3...Take one from the ICES file.
**a copy of this study...Check one out from the ICES file.
**pencil, paper and drawing supplies...Be sure you will be able to obtain all the materials you need before you begin your activity.

The work you turn in will be:

- ☐ Bookmark for vocabulary study.
- ☒ Character Chart #3.
- ☒ Answers to study questions in a notebook.
- ☒ Follow-up activity.

When you need help, see

See your teacher before you begin on the follow-up activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE

Miss Bianca in the Salt Mines, by Margery Sharp

Teacher Information

Grades: 5-6; for one student.

Time: 5 periods for required work; 2-3 periods for activity.

Assignment: Be sure to check the appropriate box if you want the student to do the vocabulary bookmark.

IMC Information

Study: Cover and 2 pages.

Commercial materials: Hardbound book from Little, Brown & Co., 34 Beacon Street, Boston, Mass., 02106, at $6.95.

Processing: Catalog book into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Mouse and the Motorcycle by Beverly Cleary.

You will accompany Ralph, a most interesting mouse, on many exciting adventures on his motorcycle. You will do three writing or drawing assignments, keep a vocabulary bookmark and do a Charter Chart #1. Besides this you will choose one Creative Thinking Project to do. This is one study in which you have the opportunity to design your own project if you wish!

Materials you will need are

- **a copy of this contract...Take one from the ICES file.
- **a copy of this study...Check one out from the ICES file.
- **a Character Chart #1...Take one from the ICES file.
- **a vocabulary bookmark...Take one from the ICES file.
- **the book The Mouse and the Motorcycle...You will find the book cataloged under the call number CLE.in the Media Resource Center.
- **lined paper
- **drawing paper
- **pencil
- **crayons

The work you turn in will be

☒ your three assignments
☒ Character Chart #1
☒ vocabulary bookmark
☒ Creative Thinking Project

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
The Mouse and the Motorcycle

Teacher Information

Grades 3-6 for one student.

Time: Eight or more periods.

IMC Information

Cover and 4 pages.

Consumable: Character Chart #1, vocabulary bookmark.

Commercial material: The Mouse and the Motorcycle can be purchased from William Morrow & Co., 105 Madison Avenue, New York, New York, 10016, at $6.50 or Archway Paperbacks, 630 Fifth Avenue, New York, New York, 10020 at $.95 each.

Processing: Catalog book into the library.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Mouse House by Rumer Godden.

As you read the story, Mouse House, you will make a word list. You will also discuss some questions with other members of your reading team. After you have completed the book, you will choose one of the three activities to do.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**a copy of the Mouse House study...Check it out from the ICES file.
**a copy of the book...You will find it in the Fiction section with the call number GOD or in the Easy section with the call number E-G.
**a sheet of lined paper.
**drawing paper, or materials for clothespin or paper puppets for your activity...Be sure you will be able to get all the materials you need before you begin your activity.

The work you turn in will be your word list and your activity (drawings or puppet play).

When you need help, see

Check with your teacher before you begin the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE
Mouse House, by Rumer Godden

Teacher Information

Grades: 2-4; for two to four students.

Time: 5 periods for basic work; 1-3 periods for activity.

IMC Information

Study: Cover and 5 pages.

Commercial material: Paperback from Viking Press, 625 Madison Avenue,
New York, NY 10022, 75¢.

Processing: Catalog book into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

On the Banks of Plum Creek by Laura Ingalls Wilder

In this book you will live with the Ingalls family on Plum Creek in Minnesota. You will experience with them hard times and good times, times of laughter and song. For this study you will learn to use new words, do a Character Chart No.3, unscramble a puzzle, write a pioneer's diary, draw some pictures and do at least two activities of your choice.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...You may check it out from the ICES file.
- **a copy of On the Banks of Plum Creek by Laura Ingalls Wilder...You will find it in the Media Resource Center under the call number WIL.
- **a copy of Character Chart No.3...You will find one filed under C in the ICES file.
- **six or seven pieces of lined paper.
- **four pieces of 9x12 art paper.
- **one piece of 12x18 colored construction paper.
- **pencil and crayons, paints, chalk or a media of your choice.
- **other materials as needed for the activities you choose.

The work you turn in will be

☒ a notebook with: ten sentences, unscrambled names, your pioneer diary, and four pictures.
☒ your Character Chart No.3.
☒ two activities: number______________ and ______________.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

On the Banks of Plum Creek by Laura Ingalls Wilder

Teacher Information

Grades 3-5; for one student.

Time: Approximately 7 to 10 periods - possibly more for some activities.

Assignment: Be sure student checks with you before beginning the two activities to make sure all needed materials are available etc.
This study requires cognition and divergent thinking skills.

Correction Sheet for Scramble People

1. Nellie
2. Caroline
3. Laura
4. Jack
5. Mary
6. Charles
7. Christy
8. Carrie
9. Mrs. Oleson
10. Miss Beadle

IMC Information

Study: Cover and 5 pages.

Commercial material: the book from Harper-Row Pubs., Inc., 10 E. 53rd St., New York, NY 10022, at $6.95. Also available in paperback at $1.25.

Processing: Catalog book into library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Oscar Otter by Nathaniel Benchly

Read this book to find out about all the other animals who followed Oscar. After you read the story you will write answers to six questions.

Materials you will need are

- **your copy of this contract . . . You will find it in the ICES file
- **a copy of the study . . . You will find it in the ICES file
- **the book . . . You will find it in the easy book section of the library under the call number EB
- **lined paper
- **a pencil

The work you turn in will be

☒ Your answers to six questions.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Oscar Otter by Nathaniel Benchly

Teacher Information

Grade: 2 for one student

Time: 1 to 3 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide).

Teacher answers for questions in study:

1. Who? the fox, wolf, mountain lion, moose.
2. The moose is different because he thought he was in a parade; he wasn't going to eat any of the others.
4. Oscar also got caught (and eaten) by other animals.
5. Danger makes a story exciting because it helps hold your attention; you want to see what will happen.
6. fish; student response.

IMC Information

Study: Cover and 2 pages.

Commercial material: book from Harper Row Publishing, Inc.
10 E. 53rd Street
New York, N.Y. 10022

Price: $3.95

Processing: Catalog book into library.

6/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Otis Spofford by Beverly Cleary

You will share in the exciting adventures of the impetuous Otis. You will read the book, analyze Otis' character, and do five assignments, and then---, IF YOU DARE, you will do the SPECIAL ASSIGNMENT - - - - - THE PINK UNDERWEAR SHEET!

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**THE PINK UNDERWEAR SHEET (if you dare)...Get this from the ICES file.
**a copy of Otis Spofford...Check this out from the Media Resource Center. You will find it under the call number CLE.
**lined and drawing paper.
**pencil and crayons.

The work you turn in will be

☒ five assignments
☐ SPECIAL ASSIGNMENT (if you dare)

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Otis Spofford by Beverly Cleary

Teacher Information

Grades: 3-6; for one student.

Time: 8 or more periods.

IMC Information

Study: Cover and 4 pages.

Consumables: The Pink Underwear Sheet (2 sides).

Commercial material: Book available from Morrow, William & Co., Inc., 105 Madison Ave., New York, NY 10016, at $6.50. Also available in paperback at $1.50.

Processing: Catalog book into library.

8/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Phantom Tollbooth, by Norton Juster.

One day, when life was especially boring, Milo found an automobile in his room. He climbed in and began to drive away. When he came to the tollbooth, he dropped in his coin and suddenly found himself in a new world, where he met characters like Dr. Discord, the Demon of Insincerity, Horrible Hopping Hindsight, and the Humbug.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**a copy of the book...Check one out from the Media Resource Center. You will find it under the call number JUS.
**character chart #1...Take one from the ICES file.
**a Phantom Tollbooth bookmark...Take one from the ICES file.
**a dodecahedron...Take one from the ICES file.
**paper and pencil...Activities will require various supplies. Be sure you can get everything you need before you begin your activity.

The work you turn in will be written answers to discussion questions. See instructions on page 4 of the study. A bookmark for vocabulary words from each student, character chart #1 from each team member, answers to individual questions on page 5 of the study, the activity you have chosen and the completed dodecahedron.

When you need help, see

Check with your teacher before beginning the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE
The Phantom Tollbooth, by Norton Juster

Teacher Information

Grades: 4-6; for two to four students.

Time: 5-8 periods for basic work; activity times will vary and should be set when the activity is selected.

Assignment: A vocabulary bookmark is required in this study because the use of words is so important to the style used by the author.

IMC Information

Study: Cover and 7 pages.

Consumables: Bookmark, dodecahedron pattern sheet.

Comercial material: Paperback from Random House, Westminster, MD 21157, at 75¢.

Processing: Catalog book into library.

Rev. 4/76

Independent Curriculum Enrichment Studies
LITERATURE

This study is for

Date to begin is

Your study will be A Picture for Harold's Room
by Crockett Johnson

If you like to draw pictures, this study is for you. You will read the book, write about two pictures and draw a picture.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **the book...You will find it in the easy book section of the library under the call number E J.
- **lined paper and drawing paper.
- **a purple crayon.
- **a pencil.

The work you turn in will be

☒ your answer to the question.
☒ one purple crayon picture.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

A Picture for Harold's Room by Crockett Johnson

Teacher Information

Grades 1&2; for one student.

Time: 2 to 4 periods.

Assignment: Discuss with the student what he/she is to do. Make sure he/she knows how to find the materials. One of the intents of this study is to start the student on the road to independent work habits. Praise the student for his/her work when it is turned in.

IMC Information

Study: Cover and 1 page.

Commercial material: The book from Harper & Row Pubs., Inc., 10 E. 53rd St., New York, NY 10022, at $4.95. Also available in paperback from Scholastic Book Services, 50 W. 44th St., New York, NY 10036, at $.95.

Processing: Catalog book into the library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Pushcart War by Jean Merrill

A book about a most interesting war. Although wars are not usually humorous you will find this book quite funny. This story has six parts. You should plan to read one part each week and to complete the assignment for that part during that week. Unlike most ICES studies you should plan to conference with the teacher or MGM resource aide at the end of each part. Your directions for doing this study are done in "war terms".

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of the study...You may check it out from the ICES file.
**a copy of The Pushcart War...Check it out from the Media Resource Center. You will find it under the call number MER.
**a pencil.
**a composition book in which to write your answers to the questions in this study.

The work you turn in will be

☒ Your composition book with your answers. You will show this to your teacher or MGM resource aide at your weekly conferences.

☒ Your Prisoner of War Record

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Pushcart War by Jean Merrill

Teacher Information

Grades 5 and 6 for 1 student. If multiple copies of the book are available a small group of students could do this study at the same time and conference together weekly with the teacher or MGM resource aide. Each student must keep his own composition book.

Time: 30 periods

Assignment:

The major goal of the study is to help the student appreciate and enjoy the reading of The Pushcart War by furthering their understanding of it. A minor goal is to help him know exactly what is expected of him in answering questions; hence, the explicit instructions each time as to the form the answer is to be in. It is suggested you discuss with the student in advance the requirement for a paragraph-topic sentence plus 3 or 4 supporting sentences.

The war aspect of the book has been carried out by phrasing all the instructions in war terminology. The general vocabulary of the book is not difficult. The only terms which would not necessarily be in the children's own known vocabulary are the war terms. In each instruction sheet, the war terms used are those which are included in that part of the story. If the student can read and understand the terms in the instruction sheet, he has mastered the vocabulary for that part.

It is suggested you have the students keep their answers in a composition book. On this study you should plan to meet with the student once weekly. Each time you meet, plan the time of your next meeting. The student can then enter the time on his contract.

Make sure that the student understands that this is a projected war. The book was published in 1963 and is supposed to be taking place in 1976.

Information about the author is included at the end of the children's work contracts.

IMC Information

Study: Cover and 20 pages.
Consumable: Prisoner of War Record Sheet.
Additional teacher information: Answer Sheet.
Commercial material: Book from Addison-Wesley Publishing Co., Jacob Way, Reading, MA 01867, at $5.50. Also available in paperback from Grosset & Dunlap, Inc., 51 Madison Ave., New York, NY 10010, at $.75.
Processing: Catalog book into library.

THE PUSHCART WAR TEACHER'S ANSWER SHEET

Specific :

Part I - pages 13-38

Possible answers to #4:

The heavier the traffic the ruder the drivers became.
They hogged the best parking places.
Blocked traffic.
Never let anyone else turn first.
Few drivers argued with a 12-ton truck.

Possible answer (partial) to #5:

The end of New York as we know it today.

Part II - pages 39-82

Re-read pages 60-64 together, taking parts of different speakers to enjoy the humor.

You might discuss the concept of escalation (p. 50) or pacificism (pp. 68-70). Could you draw from the student the term campaign headquarters in reviewing p. 80?

Possible answers to #3:

damage to carts
trucks nudging more and more often
peddlers needed hospital treatment

Part III - pages 83-112

You might discuss the concept of "mass hysteria" - p. 86.

Pages 105-106: Discuss - should the news media be limited to the information they can print? Does watching violence on TV tend to make children violent? Are crimes described in the paper practiced by the readers?

Part IV - page 145

The reader might need help in learning to use the asterisk * and dagger † to find the footnotes below.

Perhaps you could relate the Portlette Papers to the Pentagon Papers, or the Nixon or Johnson Papers.

Part V - pages 153-178

The phrase "by hand" is associated with General Anna several times. Discuss the different meanings this phrase had in this story.

Part VI - pages 179-223.

In Letters to Editor section (pp. 199-204) you might ask a very interested student to find the significance of letter from R. Solbert. (Ronni Solbert is illustrator of The Pushcart War.)

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Rabbit Hill by Robert Lawson

Hard times had fallen on the animals of Rabbit Hill. First the old house had been occupied by non-planting folks, then no folks at all. Now there was a rumor that new folks were coming. What would they be like?

You will read the book Rabbit Hill. Then you will do the projects checked below.

Materials you will need are

**your contract for this study...Take one from the ICES file.
**your copy of this study...Take one from the ICES file.
**the book Rabbit Hill...Check it out from the Media Resource Center. You will find it under the call number LAW.
**materials for a notebook...Lined paper, drawing paper, construction paper and a pencil.
**a long piece of paper to make a panorama.
**a bookmark if it is checked below.
**Character Chart #3

The work you turn in will be

☐ Vocabulary bookmark
☒ Character Chart #3
☐ Interpret Words With Pictures
☒ Write a Story
☐ Book Game
☒ Feed the Animals
☒ Plain Talk

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Rabbit Hill by Robert Lawson

Teacher Information

Grades 4-6; for one or more students.

Time: 3 to 4 weeks

Assignment: Be sure to check on the contract if you want the student to do a Bookmark and the Interpret Words With Pictures. Do you want a book game?

IMC Information

Study: Cover and 6 pages.

Consumable: Bookmark

Commercial material: Paperback book from Dell, 1 Dag Hammarskjold Plaza, 245 East 47th Street, New York, N.Y. 10017, at $1.25.

Processing: Catalog the book into the library.

Rev. 4/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Ramona the Pest by Beverly Cleary

Join Ramona in her hilarious adventures as she begins kindergarten. The ICES authors guarantee that no one will want to quit this book once having started it. You will do eight assignments and one QUALITY CREATIVE PROJECT.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**Ramona the Pest Character Identification Charts 1&2...Take one from the ICES file.
**Ramona the Pest Bookmark...Take one from the ICES file.
**The book Ramona the Pest...Check it out from the Media Resource Center. It can be found under the call number CLE.
**lined and drawing paper.
**pencil and crayons or paint.

The work you turn in will be

☒ your eight assignments.
☒ Ramona the Pest Character Charts 1 & 2.
☒ Quality Creative Project No._____

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Ramona the Pest by Beverly Cleary

Teacher Information

Grades 4-5; for one student. Some third graders may be able to handle this study.

Time: 10-12 or more periods.

Assignment: This study requires the use of divergent thinking and the higher level thinking skill of evaluation.

Answers for Assignment 4

a. contradicted
b. awed
c. reluctantly
d. forlorn
e. gouged
f. crouched
g. executed
h. deserted
i. scoffed
j. commotion

IMC Information

Study: Cover and 9 pages.

Consumables: Character Identification Charts 1 & 2 (printed both sides). Ramona the Pest bookmark.

Commercial material: Book from William Morrow & Co., Inc., 105 Madison Ave., New York, NY 10016, at $6.50. Also available in paperback from Scholastic Book Services, 50 W. 44th St., New York, NY 10036, at $.95.

Processing: Catalog book into library.

2/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Read a Biography

You will read a biography of your choice and select one or more activities from the list in this study. Several activities call for you to read more than one biography and to make certain comparisons about them. When you are finished you will turn in all the work required by the activities you have chosen.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...You may check it out from the ICES file.
- **the biography you select from the Media Resource Center.
- **other materials as determined by the activity you select.

The work you turn in will be

the work called for in activity number _____ (and _____)

When you need help, see

Try to finish your study by

Turn in the finished work to 290

LITERATURE
Read a Biography

Teacher Information

Grades 5 or 6. Most are for one student although several activities would be appropriate for two or more.

Time: Varies greatly depending on students and on the activities selected.

Assignment: Meet with the student and discuss the activity he/she will do. These vary greatly. Some require the reading of more than one biography.

IMC Information

Study: Cover and 2 pages.

Processing: Process all new biographies into library.

9/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Read a Book About People

To begin this study you will find the Literature Sampler in your Media Resource Center. The third section of the sampler is called People. There you will find a group of cards describing exciting stories about people. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ______________________________

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Literature Sampler...You will find it in the Media Resource Center under the call number KS-028.5-L.
- **a copy of this study...Check it out from the ICES file.
- **the book you are going to read...Be sure you check it out from the Media Resource Center.
- **you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project
☒ your personal project
☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher or MGM aide before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Read a Book About People

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover and 3 pages.

Commercial material: Literature Sampler kit from Learning Research Associates, 1510 Broadway, New York, N.Y. 10036, at $54.50 without books.

Processing: Catalog kit into the library.

3/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Read a Library Book!

First you will read the study or listen to it on tape. You will choose a story from the Easy (E) section in the Media Resource Center and check it out to read. Then you will make a tape recording of your own and choose one activity from the study.

Write here the name of the book you will work with ______________

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **a tape recording of the study (if you want it)... You will find it in the Media Resource Center under the call number RT-028.5-R.
- **a story book from the E section of the Media Resource Center... Be sure to check it out.
- **a blank tape cassette and tape recorder when you are ready to make your tape recording.
- **materials for activities vary...Be sure you can get all the materials you need before you begin your activity.

The work you turn in will be

☐ a completed tape recording

☐ Activity #________

When you need help, see

Check with your teacher as soon as you have chosen the book you want to read.

Try to finish your study by

Turn in the finished work to

LITERATURE
Read a Library Book!

Teacher Information

Grades 1-2; for one to two students.

Time: 1-2 periods to read the book; 5 periods to complete the tape recording.

Assignment: A student should have done a reading study for a particular book before doing this general contract. This study may be repeated several times using a different book, and perhaps a different activity each time. The study is on tape, so the student can listen to the directions before he begins.

Activity #1 results in a book game; activity #2 is to create a drawing or diorama. For activity #3 the student will need an opportunity to read his story to some kindergarten children. Some books from the Easy section are poetry or information. Only a story can be read for this study. Be sure to check the book which the student has chosen.

IMC Information

Study: Cover and 3 pages.

Additional material: District-made tape cassette.

Processing: Catalog tape cassette into the library.

Rev. 5/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Read a Tale of Courage and Daring.

To begin this study you will find the Literature Sampler in your Media Resource Center. The first section of the sampler is called Read a Tale of Courage and Daring. There you will find a group of cards describing exciting adventure stories. You will each choose your own book, but you will discuss your books together. Then each team member will choose a project to do alone or with a partner. Follow-up activities are optional.

Write here the title of the book you will read: ____________________

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the Literature Sampler...Use it in the Media Resource Center.
- **a copy of this study...Check it out from the ICES file.
- **the book you are going to read...Be sure you check it out from the Media Resource Center.
- **you may need some supplies for projects and activities...Be sure you can get everything you will need before you begin working.

The work you turn in will be

☒ a partner project

☒ your personal project

☐ a follow-up activity

When you need help, see

Check your choice of project and activity with your teacher before you begin work.

Try to finish your study by

Turn in the finished work to

LITERATURE
Read a Tale of Courage and Daring

Teacher Information

Grades 3-6; for two students.

Time: Approximately 10-15 periods for basic work, depending on the book chosen; project times will vary and a tentative date for completion should be set when the activity plan is reviewed.

Assignment: This study is keyed into the Literature Sampler which is located in your school Media Resource Center. This study may be assigned more than once.

IMC Information

Study: Cover and 4 pages.

Commercial material: Literature Sampler kit from Learning Research Associates, 1510 Broadway, New York, N.Y. 10036, $54.50 without books.

Processing: Catalog kit into the library.

Rev. 5/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Reading for Fun.

Choose one of the following books to read. The books are in the fiction section of the library, filed under the first three letters of the author's last name. If you need help choosing a book, ask your teacher or librarian if she can help you. Place a check mark in the box next to the book you choose.

☐ Henry Huggins by Beverly Cleary
☐ Mouse and the Motorcycle by Beverly Cleary
☐ Ramona the pest by Beverly Cleary
☐ The Box Car Children by Gertrude Warner

Materials you will need are

**a copy of this contract...Take one from the ICES file.
**a copy of the book you choose.
**the activity card for the book you choose. You will find it in the ICES file.
**a Mouse and the Motorcycle crossword puzzle, if that is the book you have chosen.
**paper, pencil, crayons.

The work you turn in will be your paper with the answers to the questions about the book on the activity card.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Reading for Fun

Teacher Information

Grades 2-3; for one student.

Time: Individual times will vary greatly according to the child's interest in the book, his reading ability, and the length of the book. Each book requires several periods of time which could vary in length. A good ongoing project.

Assignment: This project may be assigned more than once. There are 4 books with accompanying activity cards.

IMC Information

Consumable: crossword puzzle for Mouse and the Motorcycle.

Add'l teacher information: answer key.

Add'l material: 4 district-made activity cards.

Commercial material: The books by Beverly Cleary, Henry Huggins, Ramona the Pest and Mouse & the Motorcycle, are from William Morrow & Co., Inc., 105 Madison Avenue, New York, NY 10016 at $4.81 each. The book by Gertrude Warner, Box Car Children, is from Albert Whitman & Co., 560 W. Lake Street, Chicago, IL 60606 at $4.25.

Processing: Catalog the books into the library; put the activity cards into the ICES file in appropriately labelled manila envelope with buff checkout card and pocket.

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Answer Key

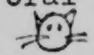
Mouse and the Motorcycle

1. picture
2. vocabulary
3. friends
    1. student answer
    2. " "
    3. " "

Box Car Children

1. any of the following:
   Henry, Jessie, Violet,
   Benny, Dr. Moore, his
   mother, Grandfather Alden
2. student answer
3. Dr. Moore cares for Violet
   (Ch. 11 & 12)
4. oral reading
5. optional free reading

Ramona the Pest

1. yes
2. oral reading
3. , Halloween, (words
   beginning with T.)
4. student answer
5. picture

Henry Huggins

1. no
2. picture
   boy, in third grade, likes people
   and dogs
3. cartoon
4. dug worms to sell
   no
   worth $7 at pet store
5. student answer
6. optional free reading

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Roosevelt Grady, by Louisa R. Shotwell.

Imagine what it would be like never to live in one place long enough to have a full year of school in the same classroom. No wonder Roosevelt dreams about a stay-put house.

After you have read this book, you will discuss some questions with your reading team. You will identify characters from the book and you will talk about new vocabulary words. Then you will choose three activities from the eight that are listed.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of this study...Check it out from the ICES file.

**the book...You will find it in the library under the call number SHO.

**one sheet of paper.

**materials for activities vary...Be sure that you will be able to obtain all the materials you will need before you begin to work.

The work you turn in will be:

☒ an answer sheet for character identification questions

☒ your own individual activity

☐ be able to define or use any word from the vocabulary list for your teacher.

When you need help, see

Check with your teacher before you begin the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE

Roosevelt Grady, by Louisa R. Shotwell

Teacher Information

Grades 3-5; for three students.

Time: 5 periods for basic work; project times will vary and should be set when the activity is chosen.

Assignment: Be sure to check the vocabulary item if the student is to work on that part of the study.

IMC Information

Study: Cover and 5 pages.

Commercial material: Paperback from Scholastic Book Services, 50 West 44th Street, New York, N.Y. 10036, 60¢.

Processing: Catalog book into the library.

Rev. 5/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Runaways

You will choose one or more books to read from a bibliography of books about "runaways". You will do a vocabulary bookmark, at least one writing task and choose two related activities from the suggestions in the study.

Materials you will need are

**your copy of this contract . . . Obtain this from the ICES file.

**a copy of this study . . . Take one from the ICES file.

**vocabulary bookmark

**the book you have chosen. . . Check it out from the media resource center

**pencil

**paper

**other materials as required by the activities you choose.

The work you turn in will be

☐ your writing assignments

☐ your completed activities

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Runaways

Teacher Information

Grades 3-6 for one student

Time: 8-10 periods, perhaps more for activities

IMC Information

Cover and 4 pages

Independent Curriculum Enrichment Studies

This study is for

Date to begin is

Your study will be Sesame Street Books.

☐ Puzzlers
☐ Shapes
☐ Numbers

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the book you will work on. Check it out from the Media Resource center. It will be in the Easy section with the call number E-S.

**the read-along tape, if you wish to use it. You will find it in the Media Resource Center with the call number RT-E-S.

**a copy of this study. Check it out from the ICES file.

The work you turn in will be

your activity and contract sheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Sesame Street Books

Teacher Information

Grades 1-2; for one student.

Time: five periods.

Assignment: Check which book the student is to read.

IMC Information

Study: 2 pages.

Commercial Materials: The books are available from New American Library, 1301 Avenue of the Americas, New York, NY 10019, at 95¢ each.

Additional Material: District-made read-along tape cassette.

Processing: Catalog books and tape cassette for the library.

11/75

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Settling of the West.

You will choose a fiction book to read from the list at the end of the study. Write which book you have chosen here:

Title______________________________ Author______________________________

Materials you will need are

[illegible]our copy of this contract--Take one from the ICES file.
[illegible]a copy of the study--Check one out from the ICES file.
**the book you choose to read--If you find it in the Media Resource center, be sure to check it out.
**a Time Line (U.S. 1828-1872)--Take one from the ICES file.
**if checked below, a Character Chart #4 and/or a Bookmark--Take what you need from the ICES file.
**Materials for activities vary--Be sure you can get everything you need before you begin your activity.

The work you turn in will be your Time Line Chart and your activity. If checked here, also do:

☐ Character Chart #4

☐ Bookmark (list of new words)

When you need help, see

Be sure to confer with a teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LITERATURE
Settling of the West

Teacher Information

Grades 4-6; for one student
Time: Approximately 10 to 15 periods.
Assignment: Be sure to check the boxes on the contract if you want the student to do a Character Chart and/or Bookmark (vocabulary). The student is directed to confer with a teacher before beginning his chosen activity. This study may be assigned more than once, selecting a different book each time.

IMC Information

Study: Cover and 6 pages.

Commercial material: The student will probably need to go to the library to get his book.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Sing Down The Moon by Scott O'Dell

Bright Morning escapes from the slavers only to reach home as the Long Walk began.

You will read the book and contract with your teacher to do the following: Character Chart #1, Vocabulary Study, Questions and two or more activities.

Materials you will need are

- your contract for this study...Take one from the ICES file.
- a copy of the study...Check one out from the ICES file.
- the book Sing Down The Moon...You will find it in the Media Resource Center under the call number ODE.
- a copy of Character Chart #1...Take one from the ICES file.
- paper and pencil.

The work you turn in will be

☒ Character Chart #1

☒ Vocabulary Study

☒ Answers to the questions

☒ Two activities ____ & ____.

When you need help, see

Try to finish your study by

Turn in the finished work to

Literature

Sing Down the Moon by Scott O'Dell

Teacher information

Grades 4-6; one student

Time: Approximately 5 periods for basic work; 2 -5 periods for activities.

Assignment: The student is directed to confer with a teacher before beginning his chosen activities.

IMC Information:

Study: Cover and 5 pages.

Consumable: Character Chart #1

Commercial material: Paperback book from Dell Publishing Co., 1 Dag Hammarskjold Plaza, 245 E. 47th Street, New York, N.Y., 10017 at 95¢ each.

Processing: Catalog the book into the library.

4/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Slavery and the Civil War.

You will choose a fiction book to read for this study. Several good ones are suggested for you. Be sure to check with your teacher before you begin. Then write the title and author of your book here:

Title____Author____

Materials you will need are

**your copy of this contract--Take one from the ICES file.
**a copy of the study--Check one out from the ICES file.
**a fiction book about abolitionists and slavery. If you find your book in the Media Resource Center, be sure to check it out.
**Time Line--U.S. 1828-1872--Take one from the ICES file.
**if checked below, Character Chart #4 and/or a Bookmark--Take what you need from the ICES file.
**Activities require various supplies. Be sure you will be able to get everything you need before you begin.

The work you turn in will be your Time Line and your activity. If checked here, also do:

☐ Character Chart #4

☐ Bookmark (for vocabulary list)

When you need help, see

Be sure to check with a teacher before you begin your activity.

Try to finish your study by

Turn in the finished work to

LITERATURE
Slavery and the Civil War

Teacher Information

Grades 4-6; for one student
Time: Allow ten to fifteen periods.
Assignment: Be sure to check the appropriate boxes if you want the student to do Character Chart #4 or a Bookmark (new words list). The study may be done several times, using a different fiction book each time. The student is directed to confer with a teacher before he begins his chosen activity.

IMC Information

Study: cover and 6 pages.

Additional Material: A library book will probably be needed for the historical fiction book.

4/75

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Snowbound in Hidden Valley.

This is a literature study written especially for ICES.

If checked, the following are part of your study:

○ climax work sheet

○ vocabulary list

Materials you will need are

- **your copy of this contract--Take one from the ICES file.
- **a copy of the study--Check one out from the ICES file.
- **a copy of the book--Check it out from the Media Resource Center. You will find it under the call number WIL.
- **pencil and paper
- **Some activities call for other supplies. Be sure you will be able to get everything you need before you start your activity.

The work you turn in will be

- **your "feelings chart"
- **if checked above, your climax work sheet and/or vocabulary list
- **your team tape recording
- **one or more activities

When you need help, see

Check with your teacher before you begin your activities.

Try to finish your study by

Turn in the finished work to

LITERATURE
Snowbound in Hidden Valley

Teacher Information

Grades 3-4; for two or three students
Time: Approximately 10 periods for basic work; one to five periods for each activity
Assignment: Be sure to check the climax work sheet and/or the vocabulary list if you want them to be done. Each student should check with someone before beginning any activity at the end of the study.

IMC Information

Study: cover and 5 pages

Commercial material: Book available in paperback from Scholastic Book Services, 50 West 44th Street, New York, NY 10036; 95¢.

Processing: Catalog book into the library.

4/75

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Snowy Day by Ezra Jack Keats.

You will answer some questions, do some word games or write a story depending on which things your teacher and you decide for you to do.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your copy of this study...Take one from the ICES file.
- **the book The Snowy Day...You will find it in the Media Resource Center under the call number E.
  K
- **drawing paper and crayons, if Imagining a Story is checked.

The work you turn in will be the projects checked below.

- ☐ Your answers to the Questions.
- ☐ Your answers to the Word Games.
- ☐ Your story and pictures for Imagining a Story.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Snowy Day by Ezra Jack Keats

Teacher Information

Grade 2; for one to four students.

Time: Approximately 1 to 3 periods.

Assignment: Be sure to check which projects are to be done and what work is to be turned in. If Word Games is checked be sure the child understands the directions for each game.

IMC Information

Study: Cover and 3 pages.

Commercial material: The Snowy Day, paperback, from Viking Press, Inc., 625 Madison Avenue, New York, N.Y. 10022, at $.95 each.

Processing: Catalog book into library.

Rev. 7/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Steadfast Tin Soldier by Hans Christian Anderson

Find out how this soldier was different from other soldiers. You will read the book, write some sentences, draw some pictures and write a new ending for this story.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES file.
**a copy of the study . . . You will find it in the ICES file.
**the book . . . You will find it in the easy book section of the library under the call number EA
**lined paper
**drawing paper
**a pencil
**crayons

The work you turn in will be

☐ your sentences
☐ your pictures
☐ your new ending for the story

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Steadfast Tin Soldier by Han Christian Anderson

Teacher Information

Grades1-4for one student

Time: 2 or 3 periods

Assignment: Be sure the student knows where to find all the needed materials. Remind him that he is to do all of his work independently.

IMC Information

Study: Cover and 2 pages

Commercial materials: book from Scribner's, Charles, Sons
597 Fifth Avenue
New York, N.Y. 10017

Price: $6.95

Processing: Catalog into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Super Jobs for Animal Story Readers

Do not select this study unless you have read at least five books about animals. With your teacher or MGM Resource Aide you will pick two or more SUPER JOBS. When you are finished perhaps your teacher will let you share them with your class (or other classes) or display them in the classroom or library.

Materials you will need are

**your copy of this contract . . . You will find these in the ICES file.

**a copy of the study . . . You will find it in the ICES file.

**other materials will depend on which Super Jobs you select to do.

The work you turn in will be

Super Jobs (Select 2 or more)

#1	#2	#3	#4	#5	#6	#7	#8
☐	☐	☐	☐	☐	☐	☐	☐

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Super Jobs for Animal Story Readers

Teacher Information

Grade: 2 or 3; for 1 student.

Time: depends on how many Super Jobs are selected

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide). Help the student obtain the materials needed for the Super Jobs has selected.

IMC Information

Study: Cover and 3 pages.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Swimmy by Leo Lionni

Learn how fishes help each other!

You will read the book, write one sentence and draw two pictures.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Take one from the ICES file
- **the book SWIMMY...You will find it in the easy book section of the library under the call number E L.
- **lined paper
- **drawing paper
- **a pencil
- **crayons

The work you turn in will be

☒ your sentence

☒ two pictures

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Swimmy by Leo Lionni

Teacher Information

Grades 1 & 2; for one student.

Time: 1 or 2 periods.

IMC Information

Study: Cover and 1 page.

Commercial materials: The book from Pantheon Books, 201 E. 50th St., New York, NY 10022, at $5.99. Also available in paperback at $1.25.

Processing: Catalog book into library.

2/78

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Tripod Trilogy.

In this study you will read three books by John Christopher. In order they are (1) The White Mountains, (2) The City of Gold and Lead and (3) The Pool or Fire.

Materials you will need are

**your copy of this contract. You will also need (1) a Tripod Picture Puzzle, (2) a Tripod Mystery Message, (3) a map of Europe and Mediterranean Lands, and perhaps (4) a bookmark and (5) character chart #2. You may take these from the ICES file.

**a copy of the study. Check it out from the ICES file.

**the books. You will find them in the Media Resource Center under the call number CHR.

**paper and writing and drawing materials.

The work you turn in will be the items checked:

☒ Tripod Picture Puzzle
☒ Tripod Mystery Message
☒ Map
☒ Essay
☐ Bookmark (vocabulary)
☐ Character Chart #2
☐ Whichever activity you choose ____________

When you need help, see

Be sure to check with your teacher when you are ready to choose your follow-up activity.

Try to finish your study by

Turn in the finished work to

LITERATURE
The Tripod Trilogy

Teacher Information

Grades 5-6; for one student.

Time: about 15 periods.

Assignment: Be sure to check the boxes for any optional work you want the student to do.

IMC Information

Study: Cover and 10 pages.

Consumables: Tripod Picture Puzzle; Tripod Mystery Message; Map of Europe and Mediterranean Lands.

Add'l teacher info: Key to Tripod Mystery Message (2 sides.)

Commercial material: Paperbacks are from Collier/Macmillian Publishing Co., Inc., 866 Third Avenue, New York, NY 10022, at $1.25 each.

Processing: Catalog books into the library.

10/75

Key to Tripod Mystery Message

1 W	2 I	3 L	4 L	▨	5 I	▨	6 M	7 U	8 S	9 T	▨	10 M	11 E	12 E	13 T
▨	14 Y	15 O	16 U	▨	17 I	▨	18 W	19 I	20 L	21 L	▨	22 B	23 E	▨	▨
24 A	25 T	▨	26 T	27 H	28 E	▨	29 G	30 O	31 M	32 M	33 U	34 N	35 A	36 L	▨
37 P	38 L	39 A	40 C	41 E	▨	42 O	43 F	▨	44 Y	45 O	46 U	47 R	▨	▨	▨
48 B	49 U	50 I	51 L	52 D	53 I	54 N	55 G	▨	56 A	57 T	▨	58 N	59 O	60 O	61 N
▨	62 T	63 O	64 M	65 O	66 R	67 R	68 O	69 W	▨	▨	▨	▨	▨	▨	▨

1. Synonym for outmoded (old) a r c h a i c
   24 _ _ _ 2 50 _
2. Antonym for simplicity i n t r i c a c y
   5 54 _ _ _ _ _ _ 44
3. Antonym for calm t u r b u l e n t
   _ 16 _ 22 33 3 _ _ _
4. Synonym for weaknesses f a l l i b i l i t i e s
   43 _ 51 _ _ _ _ 4 _ _ _ _ 8
5. Synonym for hopeless f u t i l e
   _ 7 _ _ _ 41
6. Antonym for aggressive d o c i l e
   _ 30 40 _ 36 _
7. Antonym for energetic l e t h a r g i c
   _ _ 9 _ 35 66 _ 17 _
8. Synonym for frowning l o w e r i n g
   _ 45 1 _ _ _ 34 _
9. Synonym for considered c o n t e m p l a t e d
   _ 68 _ _ _ 6 37 _ _ 26 _ _
10. Antonym for increasing d w i n d l i n g
    52 _ _ _ _ _ 53 _ _
11. Synonym for distressing h a r r o w i n g
    _ 56 67 _ 59 69 _ 58 55
12. Antonym for happy m o r o s e
    10 15 47 42 _ 28
13. Antonym for reverent c o n t e m p t u o u s
    _ 63 61 _ _ _ _ _ _ 60 _ _

14. **Synonym for counting** e n $\underset{46}{u}$ $\underset{64}{m}$ $\underset{12}{e}$ r a t i o n

15. **Synonym for destroying** $\underset{65}{o}$ $\underset{48}{b}$ $\underset{20}{l}$ i $\underset{62}{t}$ e r a $\underset{57}{t}$ i n g

16. **Antonym for short** i n $\underset{25}{t}$ $\underset{11}{e}$ r $\underset{31}{m}$ i n a b $\underset{21}{l}$ e

17. **Synonym for elementary** r $\underset{49}{u}$ d i $\underset{32}{m}$ e n $\underset{13}{t}$ $\underset{39}{a}$ r $\underset{14}{y}$

18. **Antonym for exhalted** m $\underset{23}{e}$ n $\underset{19}{i}$ a $\underset{38}{l}$

19. **Synonym for wringing** $\underset{18}{w}$ r e n $\underset{29}{c}$ $\underset{27}{h}$ i n g

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The 21 Balloons by William Rene du Bois

Accompany Professor Sherman on his travels around the world in forty days. Learn about interesting Krakatoan customs. You will read the book in three sections doing an interesting assignment for each part. When finished you will choose and complete at least one Krakatoan Contrivance from the list in the study.

For a group of students who have all completed this study there is an EXTRA SUPER SPECIAL PROJECT. You must have your teachers or MGM aide's permission to request this project.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.

**a copy of this study . . . You may check it out from the ICES file.

**a Krakatoan Restaurant Calendar

**a copy of the book The 21 Balloons . . . Check this out of the Media Resource Center.
It can be found under the call no. DUB

**lined and drawing paper

**paints or crayons

**pencil

The work you turn in will be

☒ Assignments 1, 2 and 3.

☒ Your Krakatoan Contrivance

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The 21 Balloons by William Pene de Bois

Grades 4-6 for one student

Time: 8-10 periods

Assignment: This study ends with the offer of a special project for a group of 4-6 students who have all completed the study. This project, which must be requested from the MGM Coordinator, consists of a set of instructions for constructing and launching a plastic hot air balloon. This project must have your approval. The construction and launching must take place under your supervision. If you are unwilling to oversee such a project do not request this project.

IMC Information

Cover and 5 pages

Consumables: Krakatoan Restaurant Calendar (one side)

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be Two Societies

You will choose two historical fiction books from the list given in the study and will compare the different societies or cultures about which you have read, in different ways.

When you have finished the two books you have chosen you will make a vocabulary bookmark and a time chart. You will answer five study questions and select one activity from the list given in the study.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**your copy of the study... Take one from the ICES file.
**copies of the two books you have selected from the list in the study...Use the card catalog to locate them and check them out of the Media Resource Center.
**vocabulary bookmarks...Take two from the ICES file.
**pencil and lined paper.
**materials for activities as needed...Be sure that you will be able to get all the materials you need before you begin.

The work you turn in will be

☒ Vocabulary bookmarks (2).

☒ Answers to five study questions.

☒ Activity number______.

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Two Societies

Teacher Information

Grade 6; for one student.

Time: 10 to 16 periods for basic study; 2 to 6 periods for activity.

Assignment: This is a comparison of two historical fiction books selected by the student from a list in the study.

IMC Information

Consumable: 2 general bookmarks
Study: Cover and 7 pages.

Commercial material: Books on list in study or substitutes may be obtained from the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Ugly Duckling by Hans Christian Andersen. Adapted by Adrienne Adams

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of this study...You may check one out from the ICES file.
- **the book...You will find it in the library under the call number AND.
- **lined paper.
- **drawing paper.
- **a pencil and crayons.

The work you turn in will be

☒ your answers to two questions.
☒ your writing about how the duckling felt

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

The Ugly Duckling by Hans Christian Andersen. Adapted by Adrienne Adams

Teacher Information

Grades 3&4; for one student.

Time: 1 or 2 periods.

Assignment: While this book has a vocabulary more suited to students in grades 3 and 4 it may be appropriate for certain advanced students in grade 2.

IMC Information

Study: Cover and 1 page.

Commercial materials: The book, from Charles Scribner's Sons, 597 Fifth Ave., New York, NY 10017, at $7.95. Also available in paperback at $1.25.

Processing: Catalog book into the library.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be **Watch Out For Witches**

You will read and select two or more "witch books" which you will be able to locate by using the card catalog in the Media Resource Center (not all schools have the same "witch books"). After learning about enchanting spells, charms and rituals which have power over natural forces you will select and complete at least three activities from the Witch Activity List. You will also keep a Witch's Cauldron Bookmark of bewildering, bewitching words as well as fifteen indispensable words that all apprentice witches must know.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**the witch books you select...You will find them in the fiction section of the Media Resource Center.
**Witch's Cauldron Bookmark...Obtain one from the ICES file.
**Materials for activities vary. Be sure you will be able to get all the materials you need before you begin your activities.

The work you turn in will be

☒ Witch's Cauldron Bookmark

☒ Witch activities numbers _____, _____ and _____

☐ Other witch activities numbers ______________________________

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
Watch Out For Witches

Teacher Information

Grades 4-6; for 1 student.

Time: 20 periods or more depending on the length of books selected. An additional 3 to 10 periods depending on activities selected.

IMC Information

Study: cover and **3** pages.

Consumable: Witch's Cauldron Bookmark.

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Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be What Does the Future Hold?

Have you ever wondered what things will be like when you reach adulthood? Will things have changed very much? Do you think authors' ideas about transportation, housing etc. for the future will come true? Have their predictions come true in the past? Maybe this study will help you answer or think about these questions further. You will read a book of your choice about the future and fill out a "Reading Review Sheet." You will also select one or more writing projects and one additional activity about the future. This study will cause you to, perhaps, give more thought to a very interesting time....THE FUTURE!

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**a Reading Review Sheet...Take one from the ICES file.
**a "future" book of your choice.
**paper and pencil.
**other materials depending on which projects and activities you select.

The work you turn in will be

your Reading Review Sheet.

one or more writing projects. List numbers for projects here ____________

____

at least one activity. List numbers here ____________________

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE
What Does the Future Hold?

Teacher Information

Grades 5-6; for one or more students. This could be a very interesting study for several children to work on simultaneously. Discussing together their ideas about the future could add a lot to the unit. Joint projects or activities could be done.

Time: Could vary greatly depending on book and projects or activity selected....definitely a relatively long term project.

Assignment: Knowing the kinds of things and materials which interest a particular student, the teacher could probably be very helpful in helping him select projects or activities for this study. This is a wide open study for divergent thinkers.

IMC Information

Study: Cover and 9 pages.

Consumable: Reading Review Sheet.

8/77

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

Why Can't I? by Jeanne Bendick

Read this book to find out why you can't do many of the things that different animals do every day. After you read it you will draw some pictures and write answers to some questions which this study tells you to do.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES file.

**a copy of the study . . . You will find it in the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number EB.

**lined paper

*drawing paper

**a pencil

**crayons

The work you turn in will be

☐ your pictures

☐ your written answers

When you need help, see

Try to finish your study by

Turn in the finished work to

LITERATURE

Why Can't I? by Jeanne Bendick

Teacher Information

Grade 2 for one student

Time: 1 to 4 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher or MGM resource aide).

Teacher Answers to Questions in the Study:

1. No
2. Activities
3. (c)
4. lightness of body, big wings, shape
5. Fish get air from water through gills.
6. Flies have 6 feet with sticky hairs.
7. During winter, there is nothing to eat.
8. Caterpillar, cocoons, (adult) moth or butterfly
9. Chemicals make them glow.

IMC Information

Study: Cover and 3 pages.

Commercial material: book from McGraw Hill Book Company
1221 Avenue of the Americas
New York, N.Y. 10036

Price: $4.72

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Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be The Witch of Blackbird Pond, by Elizabeth Speare.

This story is set in colonial New England. Kit had known how to swim since she was a child. Little did she guess that her ability to stay afloat would be one more piece of evidence convincing the community that she was a witch. After you have read this book, you will do a character chart, and if checked below, a bookmark for vocabulary study. Then you will choose three activities from the twelve that are suggested.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**a copy of this study...Check one out from the ICES file.
**the book...You will find it in the fiction section of the Media Resource Center under the call number SPE.
**bookmark form...Take one from the ICES file.
**character chart #4...Take one from the ICES file.
**materials for activities vary...Be sure that you will be able to get all the materials you will need before you begin your activity.

The work you turn in will be:

☐ Vocabulary bookmark.
☒ Character chart #4.
☒ Activity #______.
☒ Activity #______.
☒ Activity #______.

When you need help, see

Check with your teacher before you begin working on the activity you have chosen.

Try to finish your study by

Turn in the finished work to

LITERATURE
The Witch of Blackbird Pond, by Elizabeth Speare

Teacher Information

Grades: 6th; for one student.

Time: 5 periods for basic work; project times will vary and should be set when the activity is selected.

Assignment: Be sure to check tne appropriate box, if the student is to complete a bookmark for vocabulary study.

IMC Information

Study: Cover and 4 pages.

Commercial material: Paperback from Dell, 1 Dag Hammarskjold Plaza, 245 East 47th Street, New York, NY 10017, at 65¢.

Processing: Catalog book into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

LITERATURE

This study is for

Date to begin is

Your study will be

A Wrinkle in Time by Madeleine L'Engle.

This is a literature study written especially for ICES.

Materials you will need are

--For each member of your team--

- **A copy of this contract...Take them from the ICES file
- **A copy of this study...Check them out from the ICES file
- **A copy of the book...You will find it in the Media Resource Center under the call number LEN
- **A bookmark for A Wrinkle in Time...Take them from the ICES file

Together you will work on

- **Character chart #3...Take one copy from the ICES file
- **Lined paper and pencil or pen...Extra materials may be needed for your special project

The work you turn in will be

- **Your bookmark (one from each of you)
- **Your quotable quotes ideas (one page from each of you)
- **Character chart #3 (one for the team)
- **Your activity (one from each of you)

When you need help, see

Be sure to check with a teacher when you are ready to choose your individual project.

Try to finish your study by

Turn in the finished work to

LITERATURE
A Wrinkle in Time

Teacher Information

Grades 5-6; for a team of two to four students.
Time: ten to twelve periods for team work; project times will vary.
Assignment: The team should check with you or your ICES teacher when ready to select individual projects. You may want them to turn in their other work at that time.

IMC Information

Study: Cover and 7 pages
Consumable: Bookmark.
Commercial material: Paperback from Dell Publishing Co., 1 Dag Hammarskjold Plaza, 245 E. 47th St., New York, NY 10017; $1.25.
Processing: Catalog books into the library.

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Aftermath Series - Books I, II, III, IV

These are fun math activities which will help you learn to think logically and solve problems creatively. They include cartoons, humor, designs, puzzles, codes and games. You may choose to do the entire series or just pages chosen from any one of the four books by you or your teacher.

You may work directly on the plastic covered pages with a grease pencil or may do many of the pages using paper and pencil.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Aftermath pages...Take them from the ICES file one at a time as you work on them.

**a grease pencil (or pencil and paper).

The work you turn in will be

☐ completed work for the entire series.

☐ completed work for Book____________ Pages____________________________

List pages selected

____

____

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Aftermath Series - Books I, II, III, IV

Teacher Information

Grades 4-6; for one student.

Time: One or more periods depending on number of pages selected.

Assignment: You may assign separate pages, whole books, or the entire series. Be sure to put the assignment on the front of the student's contract. Aftermath pages will not usually require any special instructions from the teacher or resource aide, but sometimes may require a bit of studying on the part of the student before he understands what is required of him. Teachers and resource aides should look over these materials enough to be fairly familiar with them before assigning these pages just in case there are questions.

IMC Information

Additional teacher information:	Book I. Solutions and index, 7 pages.
	Book II. Solutions and index, 8 pages.
	Book III. Solutions and index, 9 pages.
	Book IV. Solutions and index, 9 pages.

Commercial material: Aftermath books are available from Creative Publications, P.O. Box 10328, Palo Alto, California 94303. Books are $4.95 each or set of four may be purchased for $17.50.

Processing: Take books apart. Place all pages except solutions and indices in plastic sleeves. Duplicate solutions and indices for teacher's binders.

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SOLUTIONS

BOOK ONE

ABACUS, Page 3

DO YOU TRUST PLUS
ON ABACUS

WHICH ONE DIFFERS?, Page 4

A) 2 B) 3 C) 4 D) 5 E) 4

MATH PUN FUN, Page 5

HALF, WHOLE, EIGHT,
DECIMAL, FRACTION

EIGHT
1 2 3 4 5

SEVEN SUM PUZZLE, Page 8

$\boxed{4}\boxed{5}=9$ $\boxed{5}\boxed{6}=11$ $\boxed{9}\boxed{7}=16$

$\begin{array}{c}\boxed{4}\\\boxed{9}\\\underline{13}\end{array}$ $\begin{array}{c}\boxed{5}\\\boxed{7}\\\underline{12}\end{array}$ $\begin{array}{c}\boxed{6}\\\boxed{8}\\\underline{14}\end{array}$ $\boxed{7}\boxed{8}=15$

Samples from the 36 solutions:

1	2	3
6	4	5

2	1	3
6	5	4

3	1	2
5	6	4

GUESSTIMATES, Pages 9–12

dots – 600, miles – 20, ducks – 150,
tally marks – 500

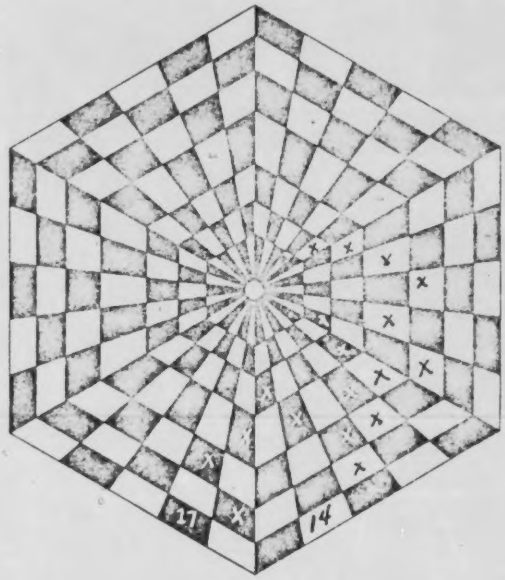
A) 36 B) 96 C) 55 D) 46 E) 45 F) 60

EVEN AND ODD, Page 13

+	O	E
O	E	O
E	O	E

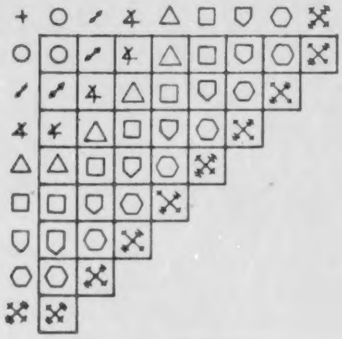
X	O	E
O	O	E
E	E	E

ODD AND EVEN MAZE, Page 14



ADD–SUB SLIDE RULE, Page 19

The chart shown below is not a square because the sum of certain elements has been left undefined.



TOWERS OF POWERS, Page 22

A	B	C	D
$1^0 = 1$	$2^0 = 1$	$3^0 = 1$	$4^0 = 1$
$1^1 = 1$	$2^1 = 2$	$3^1 = 3$	$4^1 = 4$
$1^2 = 1$	$2^2 = 4$	$3^2 = 9$	$4^2 = 16$
$1^3 = 1$	$2^3 = 8$	$3^3 = 27$	$4^3 = 64$
$1^4 = 1$	$2^4 = 16$	$3^4 = 81$	$4^4 = 256$
$1^5 = 1$	$2^5 = 32$		

STAR SEARCH, Page 23

1) 7 2) 6 3) 1 4) 4 5) 5 6) 2 7) 3

PUZZLERS, Page 25

The order of finish was: A D C E B

The next square year will be the year 2025.

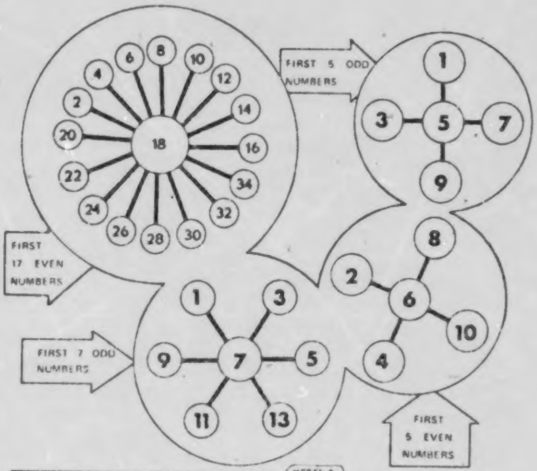
1 2 1 1 1

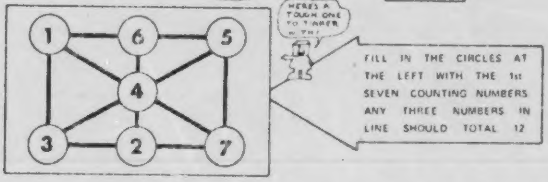
Pour glass 4 into glass 1 and replace glass 4.

DOT – DOT – DOT . . ., Page 26

1) 1, 2, 3, 4, . . ., 98, 99, 100
2) 0, 1, 2, 3, . . ., 76, 77, 78, 79
3) 0, 2, 4, 6, . . ., 194, 196, 198
4) 1, 3, 5, 7, . . ., 75, 77, 79

TINKERTOTALS, Page 29


FIRST 17 EVEN NUMBERS
18
2
4
6
8
10
12
14
16
34
32
30
28
26
24
22
20
FIRST 5 ODD NUMBERS
1
3
5
7
9
FIRST 7 ODD NUMBERS
1
3
5
7
9
11
13
FIRST 5 EVEN NUMBERS
2
4
6
8
10


1
6
5
4
3
2
7
HERE'S A TOUGH ONE TO TINKER WITH!

FILL IN THE CIRCLES AT THE LEFT WITH THE 1st SEVEN COUNTING NUMBERS ANY THREE NUMBERS IN LINE SHOULD TOTAL 12

TILE TRIAL, Page 31

Answers not unique

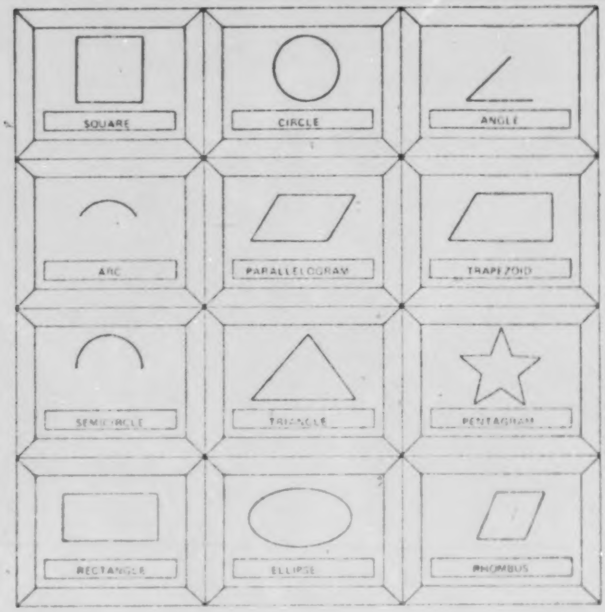
1) $6 - 4 - 2 = 0$
2) $3 + 2 - 4 = 1$
3) $4 + 2 - 3 = 3$
4) $6 + 2 - 4 = 4$
5) $3 - 2 + 4 = 5$
6) $6 + 4 - 3 = 7$
7) $6 + 4 - 2 = 8$
8) $4 + 3 + 2 = 9$

GREAT MATHEMATICIAN, Page 33

N E W T O N
1 2 3 4 5 6

SOLUTIONS

SHAPES QUIZ, Page 34


SQUARE
CIRCLE
ANGLE
ARC
PARALLELOGRAM
TRAPEZOID
SEMICIRCLE
TRIANGLE
PENTAGRAM
RECTANGLE
ELLIPSE
RHOMBUS

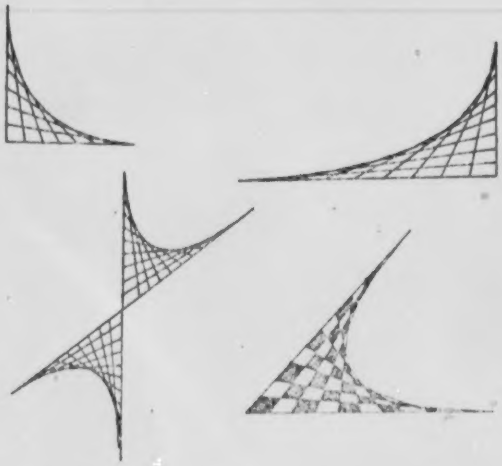
SQUARE UNITS, Page 35

2) 6 3) yes 4) 1 5) yes
6) 1 7) yes 8) 1 ½ 9) 2 ½

SQUARE UNITS, Page 36

A) 2 sq. units
B) 4 sq. units
C) 3 sq. units
D) 10½ sq. units
E) 17 sq. units
F) 9 sq. units

LINE DESIGN, Page 37



13 PATTERNS, Page 38

All patterns except D, H, K and M fold into an open box.

DIVISIBILITY, Page 39

Circle numbers divisible by 2: 162; 4,560; 24,986; 39,604; 82,588

Divisible by 2: B, C, D, G, J

DIVISIBILITY, Page 40

Sum of digits: A) 10 B) 6 C) 12 D) 18 E) 15 F) 29

Numbers divisible by 3: A, C, E, G, and I

DIVISIBILITY, Page 41

Divisible by 4: A, D, and E

Divisible by 5: 8326445920; 500005; 26040 35 895 630 3745

DIVISIBILITY, Page 42

Numbers divisible by 2 and 3:

A) 12, 24, 96, 132, 570, 275310

B) 18, 48, 84, 4506, 23610, 625430789173554

C) 54, 96.

A number divisible by six is divisible by 2 and 3.

MATH GOLF, Page 43

$2 + 2 + 2 + 2 + 3 + 3 + 2 + 3 + 4 = 23$ (low total)

3 X 3 X 3 CUBE, Page 44

8, 12, 6, 1

HOW MANY ?, Page 45

1) 14 2) 18 3) 6 4) 24

General solutions:

1) $1^2 + 2^2 + \ldots + (n-1)^2 + n^2$

3) $n(n-1)$

4) $n!$

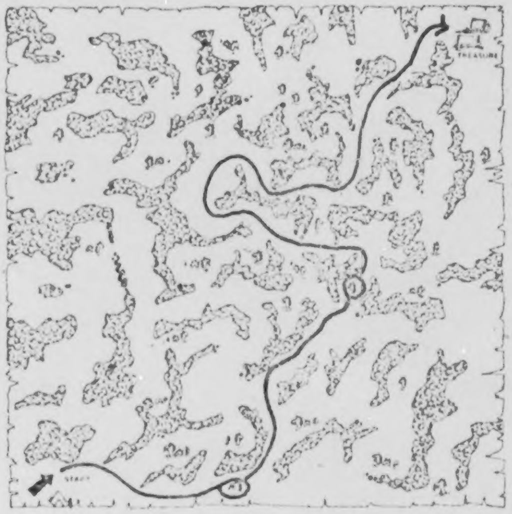
ATTRIBUTES, Page 47

B) 7 C) 2 D) both have bands

E) 8 and 12 F) 4 G) 3 and 6

H) Same shape, color and a feather. No band.

MAZE, Page 48



SOLUTIONS

MULTIPLE MADNESS, Page 50

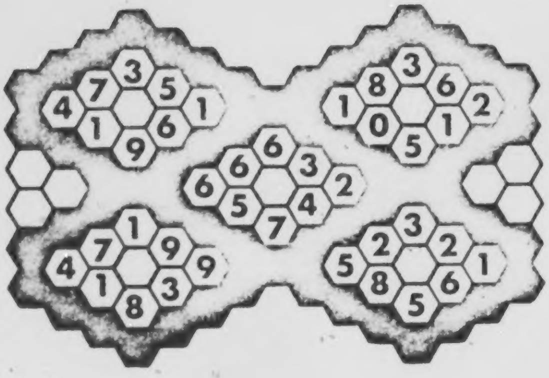
30 YEARS – 2,000
60 YEARS – 4,000
90 YEARS – 8,000
120 YEARS – 16,000
150 YEARS – 32,000
180 YEARS – 64,000
210 YEARS – 128,000
240 YEARS – 256,000
270 YEARS – 512,000
300 YEARS – 1,024,000

LOGIC, Pages 53–54

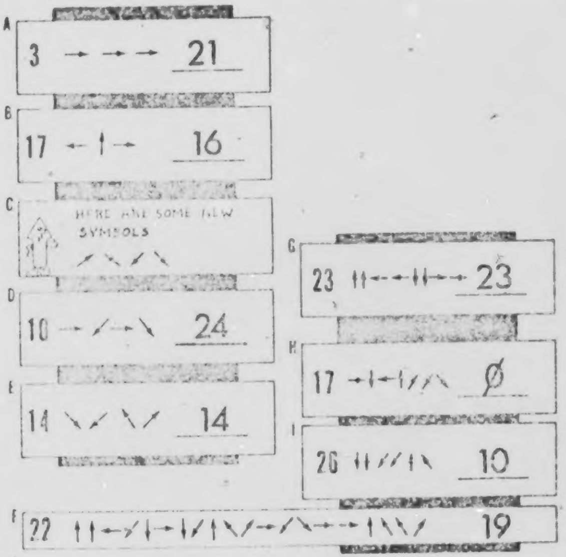
1) 4 2) 3 3) 2 4) 5 5) 3 6) 4

1) 1 2) 3 3) 5 4) 4 5) 3 6) 1 7) 1

HEX NUMBER PUZZLE, Page 55


3
7 5
4 1
1 6
9
3
8 6
1 2
0 1
5
6
6 3
6 2
5 4
7
1
7 9
4 9
1 3
8
3
2 2
5 1
8 6
5

ARROWMATH, Page 57


A
3 21
B
17 16
C
HERE ARE SOME NEW SYMBOLS
D
10 24
E
14 14
F
22 19
G
23 23
H
17 Ø
I
26 10

WHICH ONE DIFFERS ?, Page 58

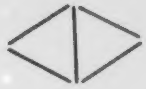
A) 4 B) 5 C) 4 D) 5 E) 5

TRIANGLE THEOREM, Page 59

A TRIANGLE CAN POSSESS AT MOST ONE RIGHT ANGLE.

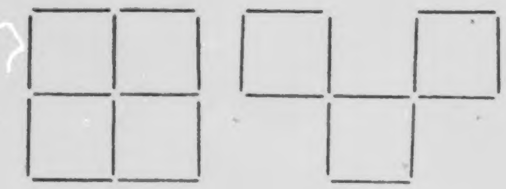
MOVING MATCHES, Page 60

1)



MOVING MATCHES, Page 60 (cont.)

2)



3) V = IV + I

4) Rotate paper 180 degrees.

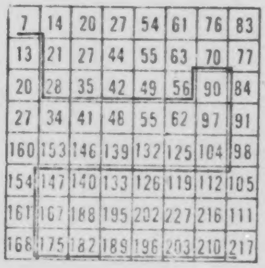
WHICH ONE DIFFERS?, Page 61

Number 9 differs.

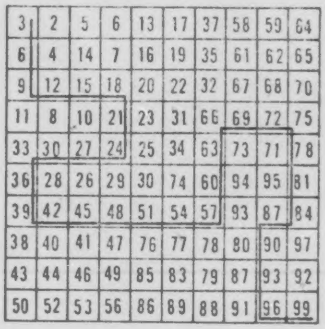
PATTERNS AND SEQUENCES, Page 62

1	1	2	3	4	5	6	7
2	2	4	6	8	10	12	14
3	7	11	15	19	23	27	31
4	1	2	4	8	16	32	64
5	1	4	9	16	25	36	49
6	1	3	5	7	9	11	13
7	0	4	8	12	16	20	24
8	1	10	100	10^3	10^4	10^5	10^6
9	2	3	5	7	11	13	17
10	1	1	2	3	5	8	13

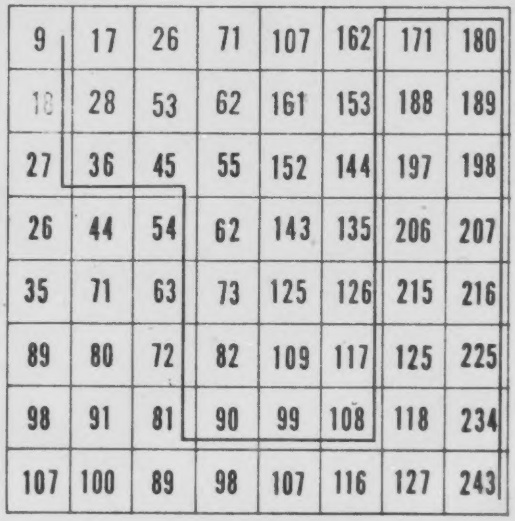
MULTIPLE MAZE, Page 64



7	14	20	27	54	61	76	83
13	21	27	44	55	63	70	77
20	28	35	42	49	56	90	84
27	34	41	48	55	62	97	91
160	153	146	139	132	125	104	98
154	147	140	133	126	119	112	105
161	167	188	195	202	227	216	111
168	175	182	189	196	203	210	217

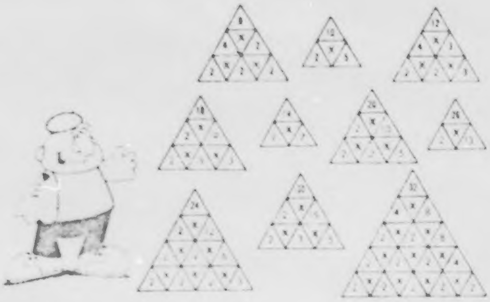


3	2	5	6	13	17	37	58	59	64
6	4	14	7	16	19	35	61	62	65
9	12	15	18	20	22	32	67	68	70
11	8	10	21	23	31	66	69	72	75
33	30	27	24	25	34	63	73	71	78
36	28	26	29	30	74	60	94	95	81
39	42	45	48	51	54	57	93	87	84
38	40	41	47	76	77	78	80	90	97
43	44	46	49	85	83	79	87	93	92
50	52	53	56	86	89	88	91	96	99

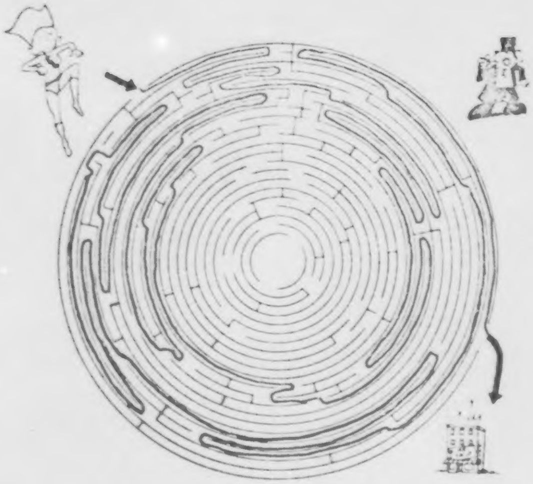


9	17	26	71	107	162	171	180
18	28	53	62	161	153	188	189
27	36	45	55	152	144	197	198
26	44	54	62	143	135	206	207
35	71	63	73	125	126	215	216
89	80	72	82	109	117	125	225
98	91	81	90	99	108	118	234
107	100	89	98	107	116	127	243

PRIME TIME, Page 65



CIRCULAR REASONING MAZE, Page 66



AVERAGES, Page 67

Average hat size: 7
Average age: 22
Average height: 62 inches

TRELLIS TWISTER, Page 68

Number 8.

DIJAKNOWTHAT, Page 69

8, 999, 991

FATHER OF MODERN MATHEMATICS, Page 74

D	E	S	C	A	R	T	E	S
(2,1)	(1,3)	(1,2)	(2,2)	(2,3)	(3,3)	(1,1)	(1,3)	(1,2)

ORDER SORTER, Page 76

M < B < Y < F < K < T < D < J
S U R P R I S E

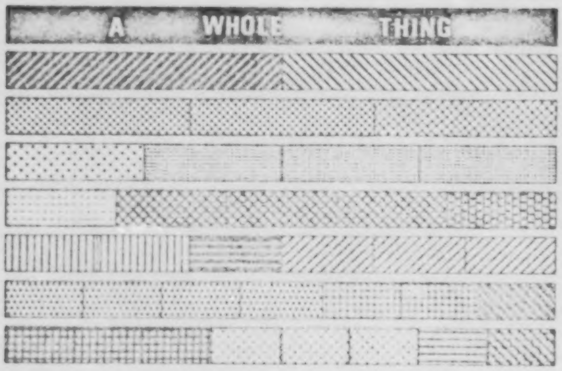
PROFILE PUZZLE, Page 77

A) 5 B) 2 C) 4 D) 3

WHAT'S MY WORD?, Page 78

MODEL TRAIN

A WHOLE THING, Page 79


A WHOLE THING

COMPLETE:

- A ▨ → 1
- B ▨ → 1/2
- C ▨ → 1/2
- D ▨ → 1/4
- E ▨ → 2/3
- F ▨ → 3/4
- G ▨ → 1/5
- H ▨ → 1/6
- I ▨ → 1/2
- J ▨ → 1/7
- K ▨ → 3/5
- L ▨ → 1/8
- M ▨ → 1/3
- N ▨ → 1/5
- O ▨ → 1/3
- P ▨ → 3/8
- Q ▨ → 1/8
- R ▨ → 3/8
- S ▨ → 4/7
- T ▨ → 2/7

LARGE SQUARE REPRESENTS ONE UNIT, Page 81

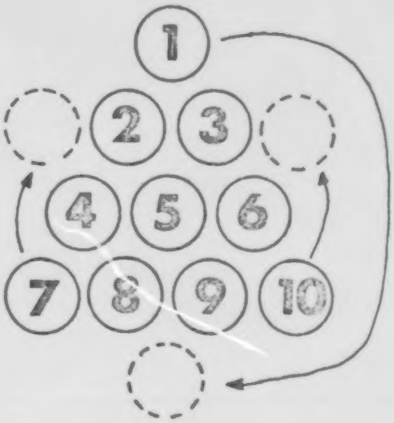
A = 1/4 of 1 = 1/4
B = 1/4 of 1/4 = 1/16
C = 3/4 of 1/4 = 3/16
D = 1/9 of 1/4 = 1/36
E = 1/3 of 1/4 = 1/12
F = 5/9 of 1/4 = 5/36
G = 1/16 of 1/4 = 1/64
H = 1/8 of 1/4 = 1/32
I = 1/4 of 1/4 = 1/16
J = 3/16 of 1/4 = 3/64
K = 5/16 of 1/4 = 5/64
L = 1/9 of 1/16 of 1/4 = 1/576
M = 8/9 of 1/16 of 1/4 = 1/72

COIN CAPERS, Page 82

A) Move penny or dime to the other end.

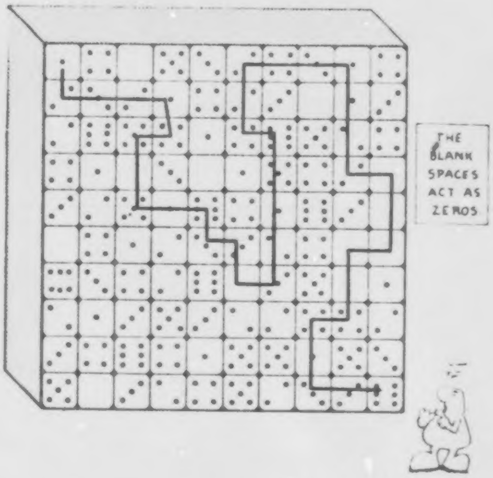
B) Six pennies. Three pennies form an equilateral triangle.

C)

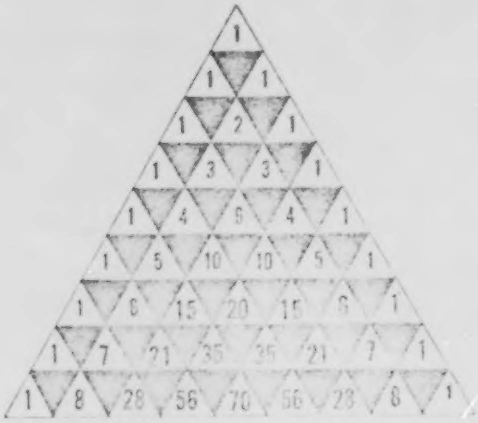

1
2
3
4
5
6
7
8
9
10

BOX O' DICE MAZE, Page 83

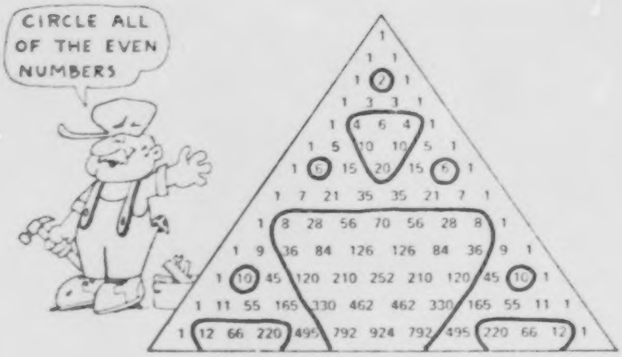
1 + 2 = 3; 3 – 2 = 1; 1 + 4 = 5; 5 – 0 = 5; 5 + 1 = 6; etc.


THE BLANK SPACES ACT AS ZEROS

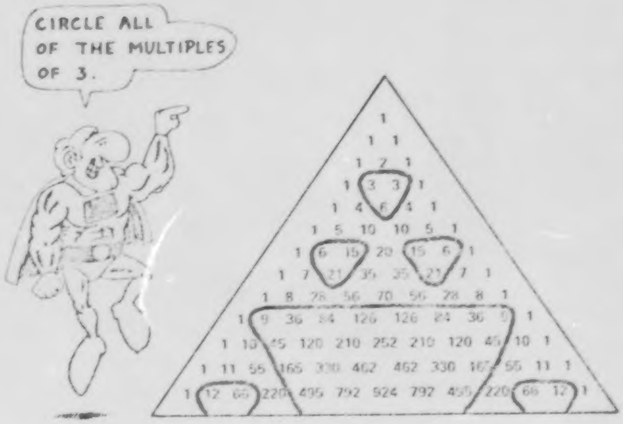
PASCAL'S TRIANGLE, Page 84

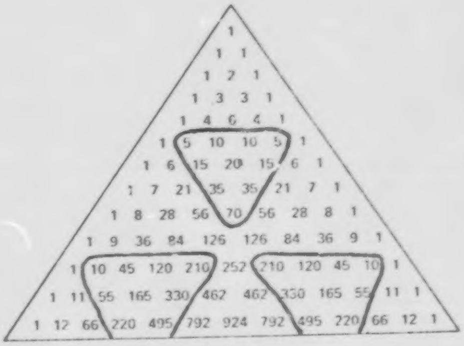

1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
1 8 28 56 70 56 28 8 1

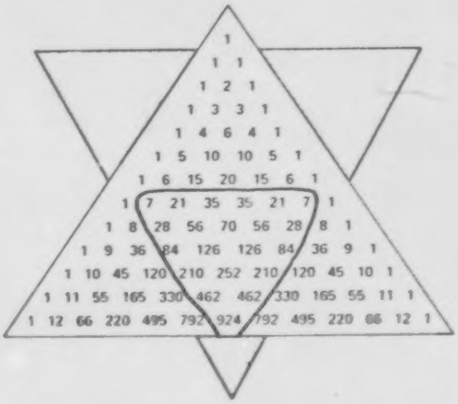
PASCAL'S TRIANGLE, Page 85


CIRCLE ALL OF THE EVEN NUMBERS
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
1 8 28 56 70 56 28 8 1
1 9 36 84 126 126 84 36 9 1
1 10 45 120 210 252 210 120 45 10 1
1 11 55 165 330 462 462 330 165 55 11 1
1 12 66 220 495 792 924 792 495 220 66 12 1

PATTERNS IN PASCAL'S TRIANGLE, Pages 85–86


CIRCLE ALL OF THE MULTIPLES OF 3.
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
1 8 28 56 70 56 28 8 1
1 9 36 84 126 126 84 36 9 1
1 10 45 120 210 252 210 120 45 10 1
1 11 55 165 330 462 462 330 165 55 11 1
1 12 66 220 495 792 924 792 495 220 66 12 1


1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
1 8 28 56 70 56 28 8 1
1 9 36 84 126 126 84 36 9 1
1 10 45 120 210 252 210 120 45 10 1
1 11 55 165 330 462 462 330 165 55 11 1
1 12 66 220 495 792 924 792 495 220 66 12 1


1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
1 8 28 56 70 56 28 8 1
1 9 36 84 126 126 84 36 9 1
1 10 45 120 210 252 210 120 45 10 1
1 11 55 165 330 462 462 330 165 55 11 1
1 12 66 220 495 792 924 792 495 220 66 12 1

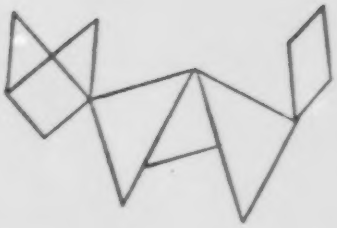
HOW MANY ?, Page 87

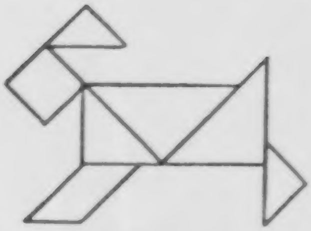
1) 18 2) 6 3) 13 4) 36

LOGIC LURE, Page 88

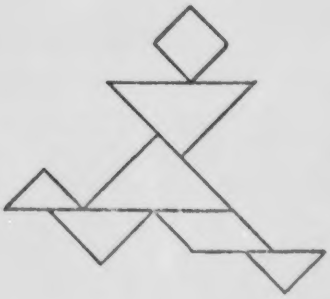
Cindy – cheerleader
Dawn – president
Zelma – twirler

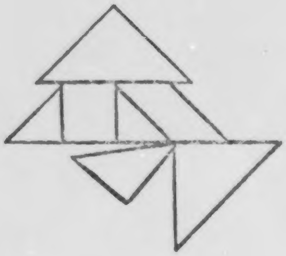
TANGRAMS, Page 89

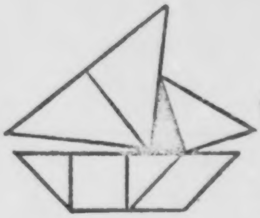


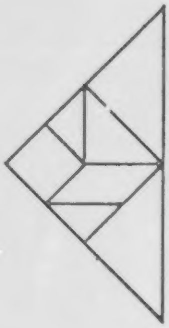


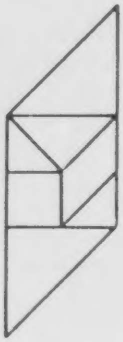
TANGRAMS, Page 89 (cont.)

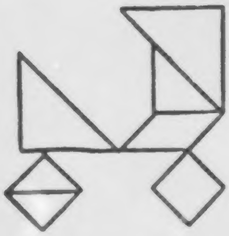






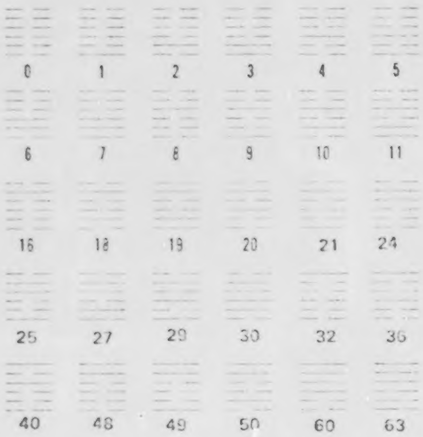






SOLUTIONS

NUMBER SYSTEM, Page 90


0
1
2
3
4
5
6
7
8
9
10
11
16
18
19
20
21
24
25
27
29
30
32
36
40
48
49
50
60
63

TILE TRIAL, Page 92

1) 2 × 3 ÷ 6 = 1
2) 3 × 4 ÷ 6 = 2
3) 2 × 4 – 3 = 5
4) 4 ÷ 2 × 3 = 6
5) 6 × 4 ÷ 3 = 8
6) 6 + 4 + 2 = 12
7) 6 × 3 – 4 = 14
8) 2 × 6 + 3 = 15

Answers not unique

FIT THE DISCS, Page 93

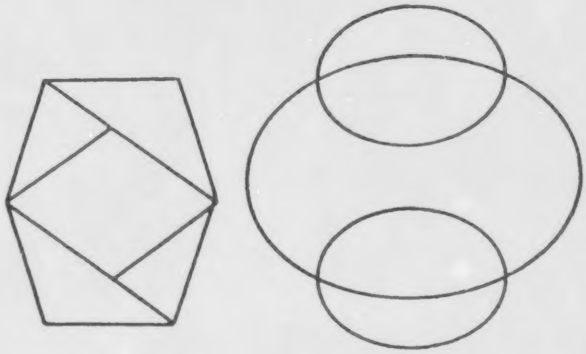
5	×	4	÷	2	=	10
×		+		+		
6	×	9	÷	3	=	18
÷		–		+		
5	+	7	–	8	=	4
=		=		=		
6		6		13		

10	–	7	–	1	=	2
–		+		+		
5	+	9	–	3	=	11
–		–		–		
4	+	6	+	2	=	12
=		=		=		
1		10		2		

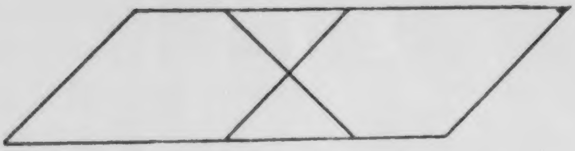
Answers not unique

COLORING MATH MAPS, Pages 94–95

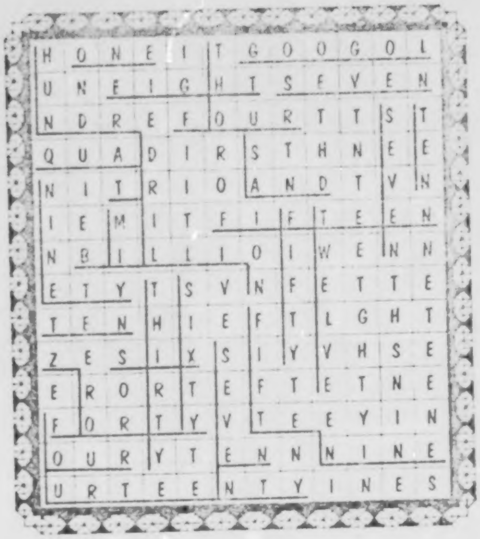
These are maps. Colors needed: 3, 3, 3



(CONTINUED)

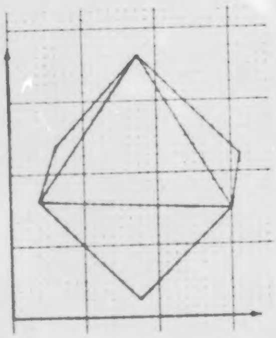


NAME GAME, Page 96



H	O	N	E	I	T	G	O	O	G	O	L
U	N	E	I	G	H	T	S	E	V	E	N
N	D	R	E	F	O	U	R	T	T	S	T
Q	U	A	D	I	R	S	T	H	N	E	E
N	I	T	R	I	O	A	N	D	T	V	N
I	E	M	I	T	F	I	F	T	E	E	N
N	B	I	L	L	I	O	I	W	E	N	N
E	T	Y	T	S	V	N	F	E	T	T	E
T	E	N	H	I	E	F	T	L	G	H	T
Z	E	S	I	X	S	I	Y	V	H	S	E
E	R	O	R	T	E	F	T	E	T	N	E
F	O	R	T	Y	V	T	E	E	Y	I	N
O	U	R	Y	T	E	N	N	N	I	N	E
U	R	T	E	E	N	T	Y	I	N	E	S

PLOTTING POINTS, Page 98



ACCURACY, Page 99

62, 071, 962, 848, 577

PHOTO ALBUM PAGES, Page 100

1. a = 5 cm, b = 5 cm
2. c = 2 cm, d = 4 cm
3. e = 1 in., f = 1.5 in.

PHOTO ALBUM PAGES, Page 101

1. g = 3 cm, h = 6 cm
2. i = 1 in., j = 1 in.
3. k = 6 cm, l = 3 cm, m = 6 cm

JANE HAS, Page 102

61¢; 1 penny, 2 nickels, 5 dimes
56¢; 1 penny, 3 nickels, 4 dimes

COMPUTATION RELAY, Page 103
154

DIGIT DISCOVERY, Page 106

3	1	5
8	2	6
9	4	7

362

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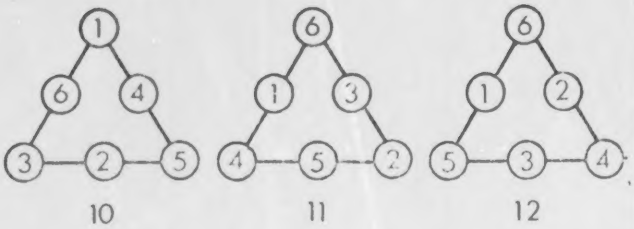
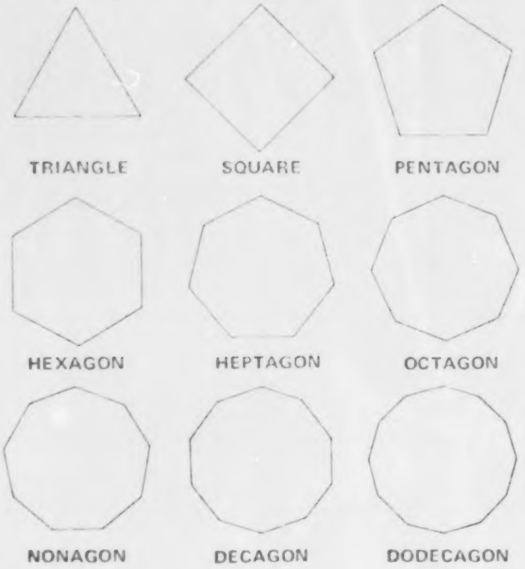
SOLUTIONS

BOOK TWO

TINKERTOTALS, Pages 1–2


1
6
4
3
2
5
10
6
1
3
4
5
2
11
6
1
2
5
3
4
12

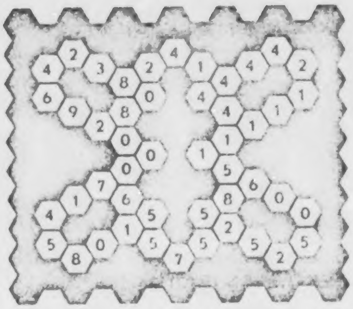
POLYGON PARADE, Page 3


TRIANGLE
SQUARE
PENTAGON
HEXAGON
HEPTAGON
OCTAGON
NONAGON
DECAGON
DODECAGON

I AM A NUMBER GAME, Page 4

2	**15**
1	**0**

HEX NUMBER PUZZLE, Page 5



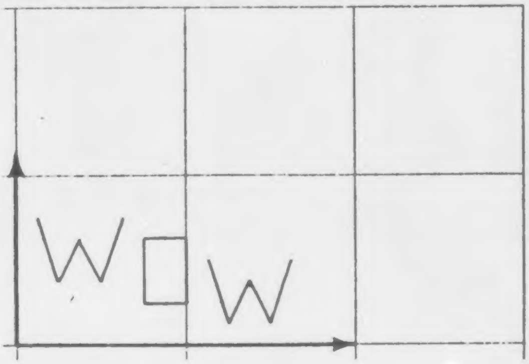
TRELLIS TWISTER, Page 6

Number 4.

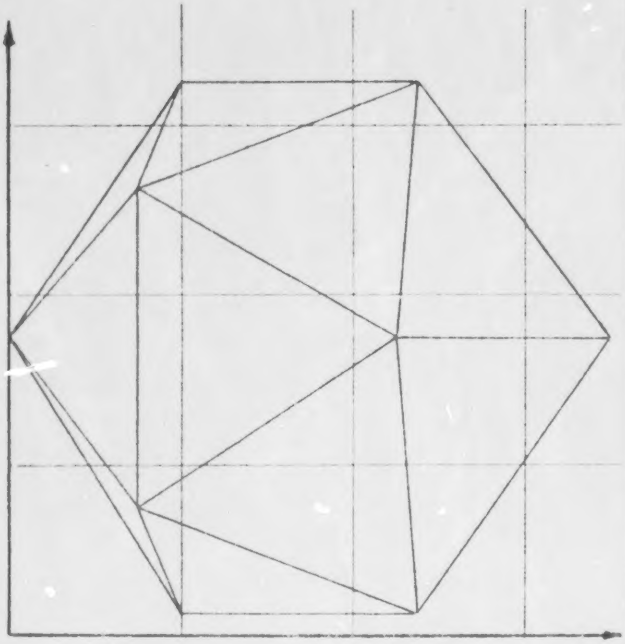
PLOTTING POINTS, Page 7

(2, 1) (2, 4) (0, 3) (3, 3) (4, 0)
(1, 1) (2, 0)
(0, 0)

PLOTTING POINTS, Page 8

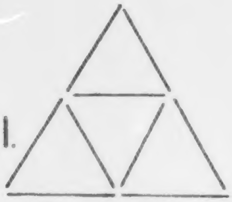


PLOTTING PICTURES, Page 9



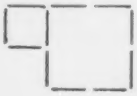
MOVING MATCHES, Page 12

I.



II. IX−VI=III

III.

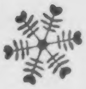


IV. I=III−II

WHICH ONE DIFFERS?, Page 13

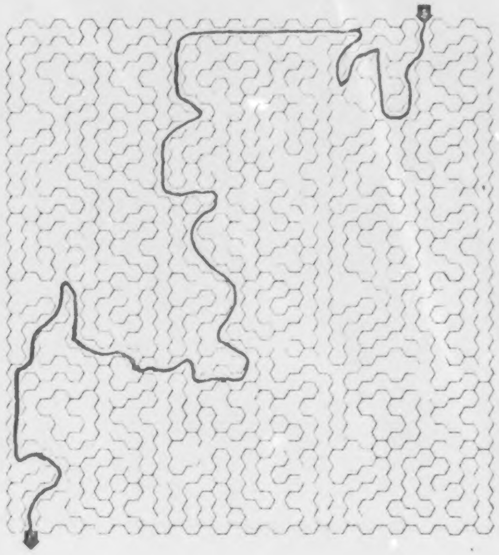
A) 2 B) 2 C) 4 D) 4 E) 3

SNOWFLAKE GEOMETRY, Page 14



This snowflake shape appears twice.

TRACE THE MAZE, Page 16



DECODE THE MESSAGE, Page 17

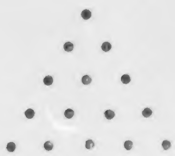
F	R	A	C	T	I	O	N
1/2	1/3	2/3	3/4	1/4	1/5	1/8	5/6

P	O	W	E	R
3/5	1/8	4/5	3/8	1/3

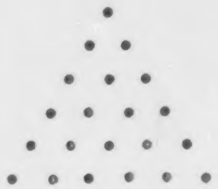
TRIANGULAR NUMBERS, Page 18

1, 3, 6, 10, 15, 21

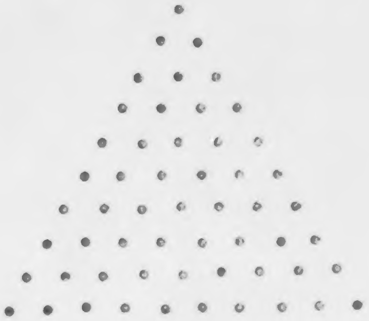
TRIANGULAR NUMBERS, Page 19



1 + 2 + 3 + 4 + 5 = 15



1 + 2 + 3 + 4 + 5 + 6 = 21



1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55

SQUARE NUMBERS, Page 20

1, 4, 9, 16, 25, 36
49, 64, 81, 100, 121, 144

TRIANGULAR AND SQUARE NUMBERS, Page 21

$9 \rightarrow 3 + 6$
$16 \rightarrow 6 + 10$
$25 \rightarrow 10 + 15$
$100 = 45 + 55$

SUM OF COUNTING NUMBERS, Pages 22–23

1 + 2 + 3 + . . . 28 + 29 + 30 = 465

SUM OF COUNTING NUMBERS, Pages 22–23 (cont.)

1 + 2 + 3 + . . . 98 + 99 + 100 = 5050

$$1 + 2 + 3 + \ldots (N - 1) + N = \frac{n(n+1)}{2}$$

HOW MANY ?, Page 24

Parallelograms: 15
Trapezoids: 18
Line Segments: 10
Letter Arrangements: 20
Circles: 11 or 12 (depending upon whether the small dodecagon in center appears to be a circle)

GIANT TREE OF NUMBERS, Page 25

10^0, 10^1, 10^2, 10^3, 10^6, 10^9, 10^{12}, 10^{15}, 10^{18}, 10^{21}, 10^{24}, 10^{27}, 10^{30}.

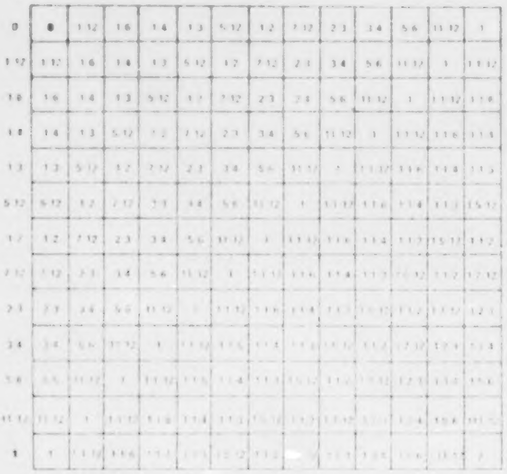
A) 5,000,000,000,000,345,000,000,000,002
B) 601,000,000,000,000,004,000,000,000,265,002
C) 77,000,000,000,770,000,000

DECODED MESSAGE, Page 26

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z.

EVERY SQUARE IS A RECTANGLE.

ADD-SUB SLIDE RULE, Page 31



ALPHABET POSITION CODE, Page 32

MATH IS A STUDY
OF PATTERNS.

DIJAKNOWTHAT, Page 33

28 = 1 + 2 + 4 + 7 + 14

TILE TRIAL, Page 34

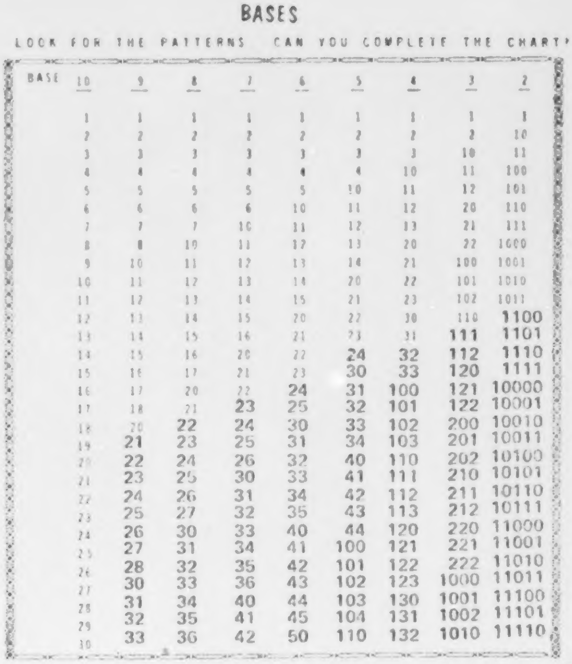
Answers are not unique.

1) 15 – 12 – 3 = 0	5) 15 + 5 – 12 = 8
2) 12 + 5 – 15 = 2	6) 15 + 3 – 5 = 13
3) 12 – 5 – 3 = 4	7) 12 + 5 – 3 = 14
4) 15 – 5 – 3 = 7	8) 12 + 5 + 3 = 20

STAR SEARCH, Page 35

1) 0	4) 0	7) 0
2) 1	5) 16	8) 12
3) 7	6) 4	9) 9

BASES, Page 36



BASES

LOOK FOR THE PATTERNS CAN YOU COMPLETE THE CHART?

BASE 10	9	8	7	6	5	4	3	2
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	10
3	3	3	3	3	3	3	10	11
4	4	4	4	4	4	10	11	100
5	5	5	5	5	10	11	12	101
6	6	6	6	10	11	12	20	110
7	7	7	10	11	12	13	21	111
8	8	10	11	12	13	20	22	1000
9	10	11	12	13	14	21	100	1001
10	11	12	13	14	20	22	101	1010
11	12	13	14	15	21	23	102	1011
12	13	14	15	20	22	30	110	1100
13	14	15	16	21	23	31	111	1101
14	15	16	20	22	24	32	112	1110
15	16	17	21	23	30	33	120	1111
16	17	20	22	24	31	100	121	10000
17	18	21	23	25	32	101	122	10001
18	20	22	24	30	33	102	200	10010
19	21	23	25	31	34	103	201	10011
20	22	24	26	32	40	110	202	10100
21	23	25	30	33	41	111	210	10101
22	24	26	31	34	42	112	211	10110
23	25	27	32	35	43	113	212	10111
24	26	30	33	40	44	120	220	11000
25	27	31	34	41	100	121	221	11001
26	28	32	35	42	101	122	222	11010
27	30	33	36	43	102	123	1000	11011
28	31	34	40	44	103	130	1001	11100
29	32	35	41	45	104	131	1002	11101
30	33	36	42	50	110	132	1010	11110

BASES, Page 37

What one number? 35_{10}

$43_8 = 35_{10} = 32_{11} = 120_5 = 38_9 = 1022_3$

$= 55_6 = 50_7 = 203_4 = 100011_2 = 2E_{12}$

A) Base 5	C) Base 9
B) Base 5	D) Base 3

GUESSTIMATES, Pages 38–39

Tallies:	105
Dots:	About 360
Objects:	About 135
Football Fans:	About 2,000

(Count one section or row and multiply by the number of sections or rows.)

SOLUTIONS

RHYME PUZZLE, Page 40

ONE TON
HIGHNESS MINUS
WIDE SIDE
GRIDDLE MIDDLE
SQUARE PAIR
DUMB SUM
DIGIT FIGIT

PALINDROMES, Pages 41–43

Number	Number of Steps	Palindrome
24	1	66
123	1	444
168	3	13431
68	3	1111
728	4	45254
97	6	44044
472	4	9559
835	3	9119
998	6	881188
561	3	4884
193	8	233332
553	3	8888
86	3	1111
918	4	89298
192	4	6996
364	5	45254
829	10	88555588
89	24	8813200023188

PROFILE PUZZLE, Page 44

A) 3 B) 3 C) 3 D) 4

WHICH ONE DIFFERS?, Page 46

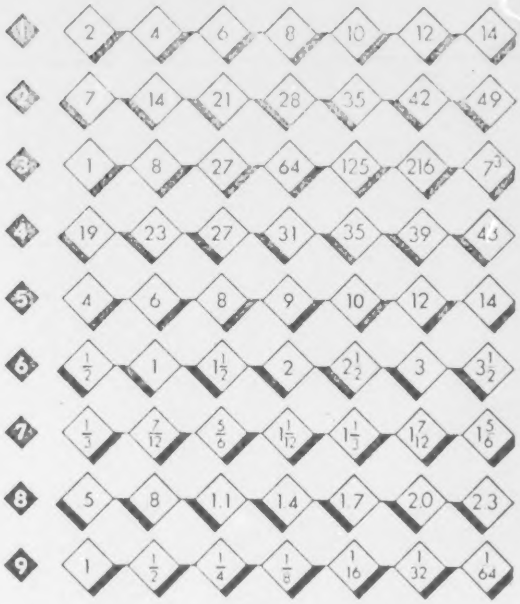
A) 1 B) 5 C) 2 D) 5 E) 1

ORDER SORTER, Page 47

F < C < G < A < E < B < D

L A R G E S T

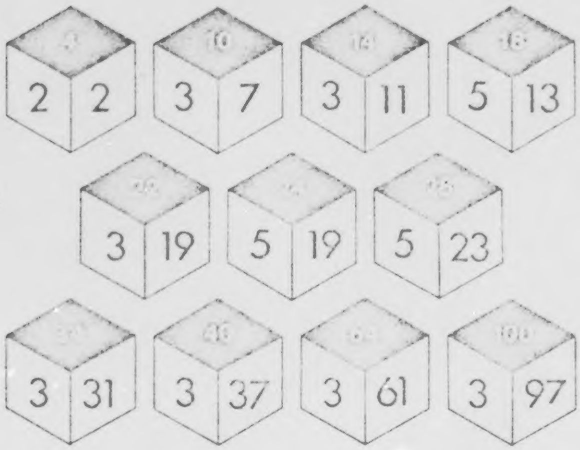
PATTERNS AND SEQUENCES, Page 48



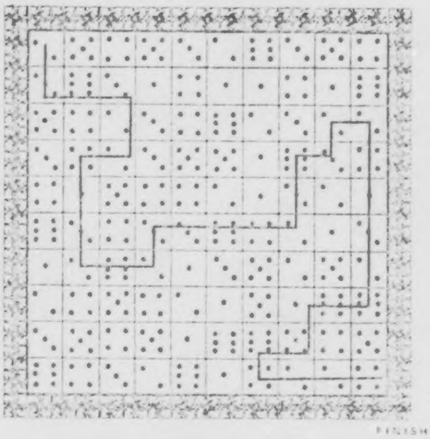
1	2	4	6	8	10	12	14
2	7	14	21	28	35	42	49
3	1	8	27	64	125	216	7^3
4	19	23	27	31	35	39	43
5	4	6	8	9	10	12	14
6	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
7	$\frac{1}{3}$	$\frac{7}{12}$	$\frac{5}{6}$	$1\frac{1}{12}$	$1\frac{1}{3}$	$1\frac{7}{12}$	$1\frac{5}{6}$
8	5	8	1.1	1.4	1.7	2.0	2.3
9	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	$\frac{1}{64}$

GOLDBACH'S CONJECTURE, Page 49

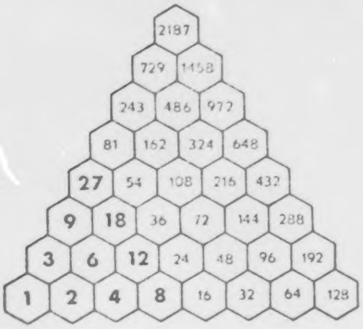
Answers not unique

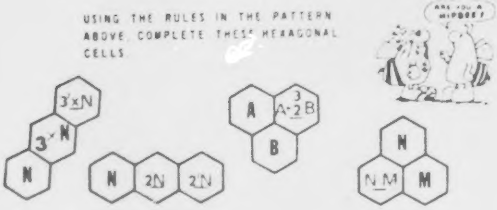

2 2
3 7
3 11
5 13
3 19
5 19
5 23
3 31
3 37
3 61
3 97

DICE MAZE, Page 52

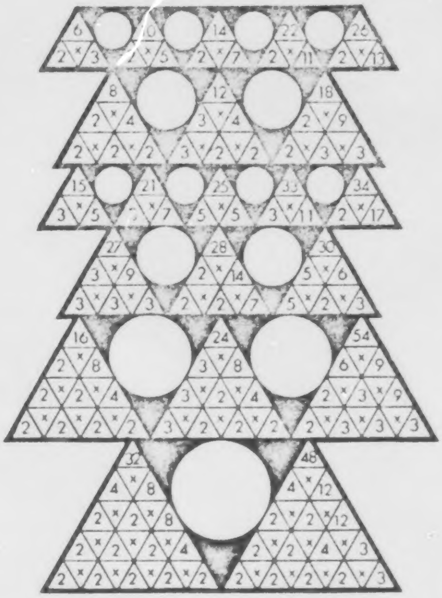


NUMBER PATTERNS, Page 51


2187
729 1458
243 486 972
81 162 324 648
27 54 108 216 432
9 18 36 72 144 288
3 6 12 24 48 96 192
1 2 4 8 16 32 64 128


USING THE RULES IN THE PATTERN ABOVE, COMPLETE THESE HEXAGONAL CELLS.
ARE YOU A HIPBEE?
3×N
3×N
N
N
2N
2N
A
A+2B
B
N
N·M
M

PRIME FACTOR TENTS, Page 53

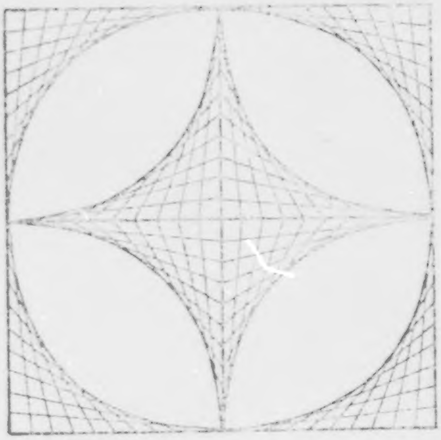

6
10
14
22
26
8
12
18
15
21
25
33
34
27
28
30
16
24
54
32
48

SOLUTIONS

SQUARE MATRIX PUZZLE, Page 54

1	4	3	2	5
4	3	2	5	1
3	2	5	1	4
2	5	1	4	3
5	1	4	3	2

LINE DESIGN, Page 55



FAMOUS MATHEMATICIAN, Page 56

GALILEO

PATTERNS GALORE, Page 57

	C_1	C_2	C_3	C_4	C_5
R_1	2				10
R_2					
R_3					
R_4					
R_5	6				30

PATTERNS GALORE, Page 57 (cont.)

1) $C_1 + C_2 = C_3$

2) $C_2 + C_3 = C_5$

3) $C_4 - C_3 = C_1$

4) $R_1 + R_2 = R_4$

5) $\begin{array}{|c|c|}\hline a & b \\ \hline c & d \\ \hline\end{array}$ $ad = bc$

6) $C_1 \times 2 = C_2$

$C_1 \times 3 = C_3$

7) The average of any row or column is the middle number in the row or column.

8) $3\,C_3 - C_4 = C_5$

9) $C_5 - C_4 = C_1$

Many others.

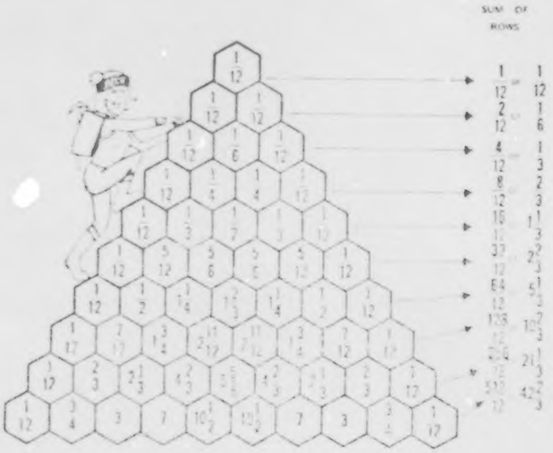
FIT THE DISCS, Page 58

9	x	1	+	7	=	16
x		x		x		
5	x	6	+	8	=	38
÷		÷		÷		
3	x	2	+	4	=	10
=		=		=		
15		3		14		■

7	+	7	–	9	=	5
+		+		+		
6	+	4	–	2	=	8
–		–		–		
5	+	3	–	8	=	0
=		=		=		
8		8		3		■

Answers not unique.

SUM FRACTIONS, Page 59


SUM OF ROWS
1/12 = 1/12
2/12 = 1/6
4/12 = 1/3
8/12 = 2/3
16/12 = 1 1/3
32/12 = 2 2/3
64/12 = 5 1/3
128/12 = 10 2/3
256/12 = 21 1/3
512/12 = 42 2/3

HOW MANY ?, Page 60

Parallelograms:	18
Rectangles:	14
Line Segments:	10
Cubes:	120

ARROWMATH, Page 61–62

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30

EXAMPLE: 6 → ↓ = 12

① 6 → ↑ = 2
② 5 ↓ ← = 9
③ 14 → ↑ → ↓ = 0
④ 23 ↑ ↑ ↑ ← = 7
⑤ 30 ↑ ← ↓ → = 30
⑥ 22 → ← = 22
⑦ 19 ↑ ↓ = 19

Other arrow operations could include ↗, ↙, ↖, and ↘.

ARROWMATH, Page 61–62 (cont.)

EXAMPLES

A → = B
A ↓ = L
K ↗ = C

A	B	C	D	E	F
L	K	J	I	H	G
M	N	O	P	Q	R
S	T	U	V	W	X

① N → = O
② P ↑ → = H
③ H ← ↑ → = E
④ N ↗ ↘ ↗ → = G
⑤ P → ↑ ↘ ↓ ← ← ↘ ↘ → = J
⑥ I ↓ ↓ ← ↑ ← ↘ ↗ ↘ ↓ → ↗ ↓ ↗ ↗ ← = P
⑦ DOES D → O HAVE ANY MEANING? NO
⑧ CAN THE ARROWS OPERATE ON TWO LETTERS? NO

DIGIT DISCOVERY, Page 63

0	8	3
5	1	7
2	4	6

DIVISIBILITY, Page 65

Divisible by 2: 18, 28, 36, 50, 80, 108, 256, 400, 416, 440, 582, 1000
Divisible by 3: 18, 36, 63, 81, 108, 111, 582
Divisible by 4: 28, 36, 80, 108, 256, 400, 416, 440, 1000
Divisible by 5: 50, 80, 400, 440, 1000
Divisible by 6: 18, 36, 108, 582

SOLUTIONS

DIVISIBILITY, Page 66

Divisible by 2: 8, 12, 16, 24, 30, 32, 54, 60, 82, 124
Divisible by 3: 12, 24, 30, 51, 54, 60, 93, 105
Divisible by 4: 8, 12, 16, 24, 32, 60, 124
Divisible by 5: 30, 60, 105
Divisible by 6: 12, 24, 30, 54, 60

MATH PUN FUN, Page 67

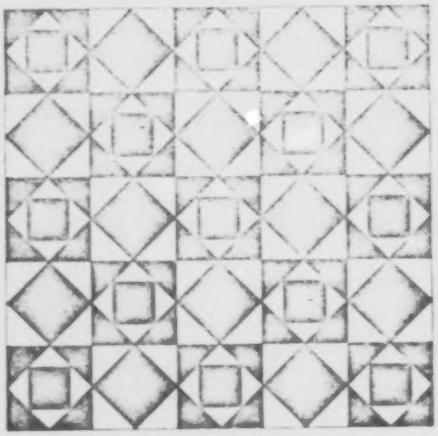
LINE, CENTER, HEXAGON,
VERTICAL, ANGLE, SQUARE.

VERTEX

AVERAGES, Page 68

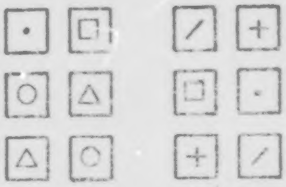
Average test score:	74.5
Average money:	$ 156.44
Average eggs laid:	47

MOSIAC MADNESS, Page 69



63% is shaded

CUBE PUZZLE, Page 70



A WHOLE THING, Page 71

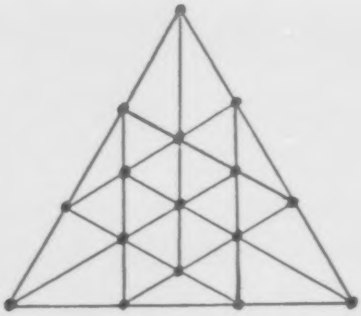
m (ADWZ) = 1 1/2
m (AHSZ) = 3 1/2
m (FHSU) = 1
m (CDWX) = 1/2
m (AMNZ) = 6
m (MLON) = 1/8

m (CAZX) = 1/4
m (LBYO) = 1 1/4
m (KAZP) = 1 1/4
m (FBYU) = 1/2
m (HAZS) = 7/8

PUZZLERS, Page 72

1) 12 times bigger

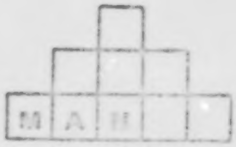
2)

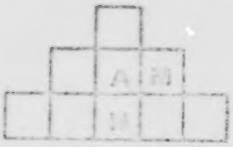


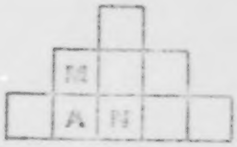
PUZZLERS, Page 72 (cont.)

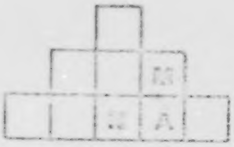
3) S, E, N, T (First letter in counting numbers, such as, Seven, Eight, etc.)
4) 7, 6, 3, 2, 0 (First ten numbers arranged alphabetically)

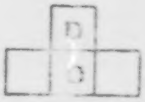
STRANGE ARRANGE, Pages 73–76

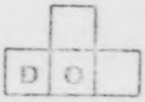


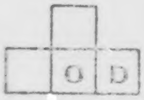


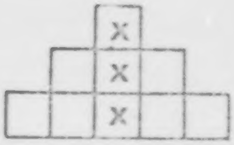


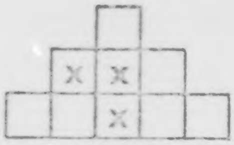


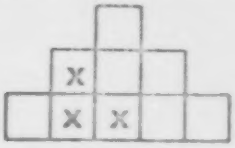


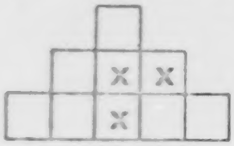


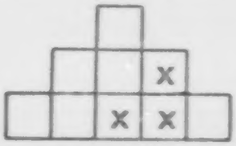


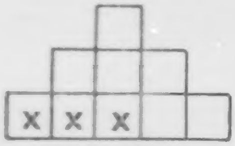


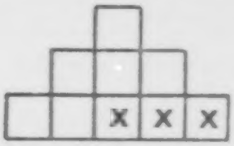












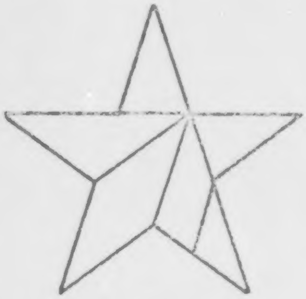
6 → 63 → 64 = 2^6

5 31 = 2^5-1
6 63 = 2^6-1
n = 2^n-1

Music can be written 6 times from here.

Music can be written 4 times from here.

STAR PUZZLE, Page 77



Answer is not unique.

WHAT'S MY WORD ?, Page 79

ROCKET SHIP

CLOCK ARITHMETIC, Pages 80–81

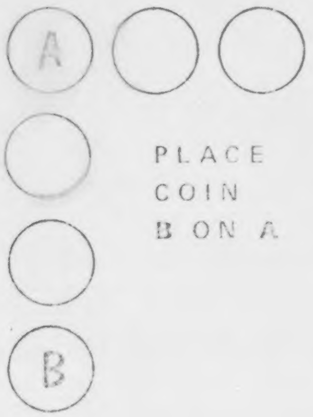
⊕	0	1	2
0	0	1	2
1	1	2	0
2	2	0	1

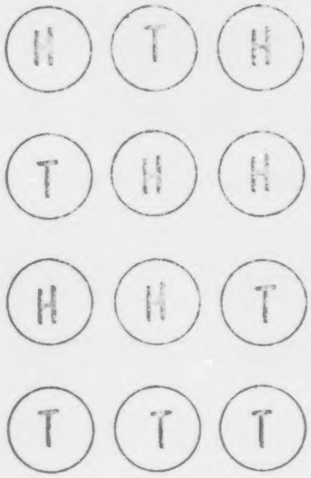
⊗	0	1	2
0	0	0	0
1	0	1	2
2	0	2	1

1) 0
2) 1
3) 0
4) 2
5) 2
6) 1
7) 1
8) 0

1–5 YES

COIN CAPERS, Page 84

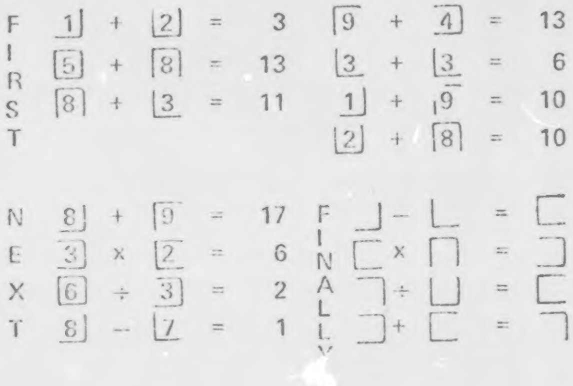

A
PLACE
COIN
B ON A
B


H T H
T H H
H H T
T T T

N	P	N	P	N	P	N	P
1	2	3	4	5	6	7	8

1) 6 7 1 2 3 4 5 _ _ 8
2) 6 7 1 2 _ _ 5 3 4 8
3) 6 _ _ 2 7 1 5 3 4 8
4) 6 4 8 2 7 1 5 3

FIND MY PATTERN, Page 85


FIRST
NEXT
FINALLY

1 + 2 = 3
5 + 8 = 13
8 + 3 = 11
9 + 4 = 13
3 + 3 = 6
1 + 9 = 10
2 + 8 = 10

8 + 9 = 17
3 × 2 = 6
6 ÷ 3 = 2
8 − 7 = 1

SQUARE UNITS, Page 86

1) 1/2
2) 1/2
3) 1
4) 1
5) 1 1/2
6) 1 1/2
7) 1
8) 1
9) 2
10) 1
11) 2
12) 3
13) 1 1/2
14) 4 1/2
15) 3
16) 2
17) 1/2
18) 1 1/2
19) 2
20) 1 1/2
21) 2 1/2
22) 3 1/2
23) 3

TILE TRIAL, Page 87

Answers not unique

1) 5 × 3 − 15 = 0
2) 5 × 3 − 12 = 3
3) 12 − (15 ÷ 3) = 7
4) 3 × 15 ÷ 5 = 9
5) 15 ÷ 3 + 5 = 10
6) 15 ÷ 5 + 12 = 15
7) 12 ÷ 3 + 15 = 19
8) 15 × 5 ÷ 3 = 25

FAMOUS MATHEMATICIAN, Pages 88–89

PYTHAGORAS

I AM A NUMBER GAME, Page 90

64	7^3 or 343
10	$1^3 + 5^3 + 9^3$ $1 + 125 + 729 = 855$

MULTIPLE MADNESS, Page 91

2	YEARS	$ 200.00
4	YEARS	$ 400.00
6	YEARS	$ 800.00
8	YEARS	$ 1,600.00
10	YEARS	$ 3,200.00
12	YEARS	$ 6,400.00
14	YEARS	$ 12,800.00
16	YEARS	$ 25,600.00
18	YEARS	$ 51,200.00
20	YEARS	$ 102,400.00
22	YEARS	$ 204,800.00
24	YEARS	$ 409,600.00
26	YEARS	$ 819,200.00
28	YEARS	$ 1,638,400.00
30	YEARS	$ 3,276,800.00

REASON TEASIN', Page 92

1) 3
2) 4
3) 2
4) 4
5) 2
6) 3
7) 3

TOWERS OF POWERS, Page 93

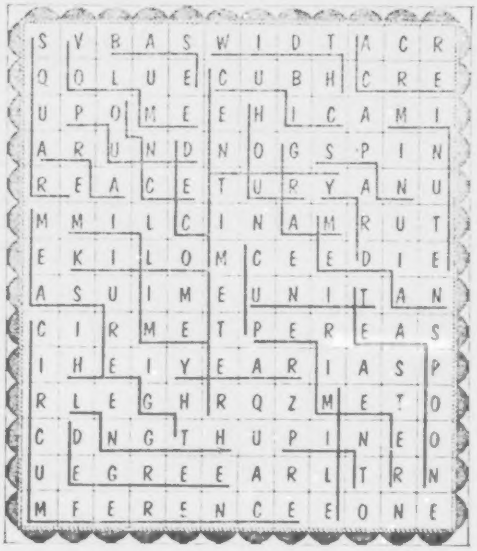
$6^0 = 1$
$6^1 = 6$
$6^2 = 36$
$6^3 = 216$

$4^0 = 1$
$4^1 = 4$
$4^2 = 16$
$4^3 = 64$

$3^0 = 1$
$3^1 = 3$
$3^2 = 9$
$3^3 = 27$
$3^4 = 81$

$1^0 = 1$
$1^1 = 1$
$1^2 = 1$
$1^3 = 1$
$1^4 = 1$
$1^5 = 1$

NAME GAME, Page 96



S	V	B	A	S	W	I	D	T	A	C	R
Q	O	L	U	E	C	U	B	H	C	R	E
U	P	O	M	E	E	H	I	C	A	M	I
A	R	U	N	D	N	O	G	S	P	I	N
R	E	A	C	E	T	U	R	Y	A	N	U
M	M	I	L	C	I	N	A	M	R	U	T
E	K	I	L	O	M	C	E	E	D	I	E
A	S	U	I	M	E	U	N	I	T	A	N
C	I	R	M	E	T	P	E	R	E	A	S
I	H	E	I	Y	E	A	R	I	A	S	P
R	L	E	G	H	R	Q	Z	M	E	T	O
C	D	N	G	T	H	U	P	I	N	E	O
U	E	G	R	E	E	A	R	L	T	R	N
M	F	E	R	E	N	C	E	E	O	N	E

GRAND PRIX, Page 97

31

ACCURACY, Page 98

62, 071, 962, 848, 577

PING PONG TOURNEY, Page 99

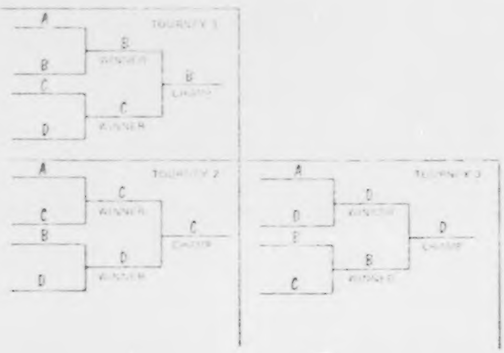

TOURNEY 1
A
B
C
D
B
WINNER
C
WINNER
B
CHAMP
TOURNEY 2
A
C
B
D
C
WINNER
D
WINNER
C
CHAMP
TOURNEY 3
A
D
B
C
D
WINNER
B
WINNER
D
CHAMP

PHOTO ALBUM PAGES, Page 100

1. $a = 2''$, $b = 1\frac{1}{2}''$
2. c = 5 cm, d = 4 cm, e = 4 cm
3. f = 4 cm, g = 9.5 cm, h = 1.5 cm

PHOTO ALBUM PAGES, Page 101

1. $i = \frac{1}{4}''$, $j = 1\frac{1}{2}''$
2. k = 4 cm, l = 3.9 cm, m = 5.4 cm
3. $n = \frac{7}{8}''$, $p = 1\frac{1}{4}''$

ONE, TWO, THREE . . ., Page 104

1) $1 + 2 - 3 = 0$
2) $1 \times (3 - 2) = 1$
3) $1 + 3 - 2 = 2$
4) $(2 - 1) \times 3 = 3$
5) $2 + 3 - 1 = 4$
6) $2 \times 3 - 1 = 5$
7) $1 + 2 + 3 = 6$
8) $1 + (2 \times 3) = 7$
9) $(1 + 3) \times 2 = 8$
10) $2 + 4 - 6 = 0$
11) $(6 - 4) \div 2 = 1$
12) $2 \times 4 - 6 = 2$
13) $2 \times 6 \div 4 = 3$
14) $2 + 6 - 4 = 4$
15) $(4 + 6) \div 2 = 5$
16) $(6 \div 2) + 4 = 7$
17) $6 - 2 + 4 = 8$
18) $6 + 2 + 4 = 12$

Answers not unique.

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SOLUTIONS

BOOK THREE

CELEBRATION, Pages 1–2

Numbers honored are one and zero.

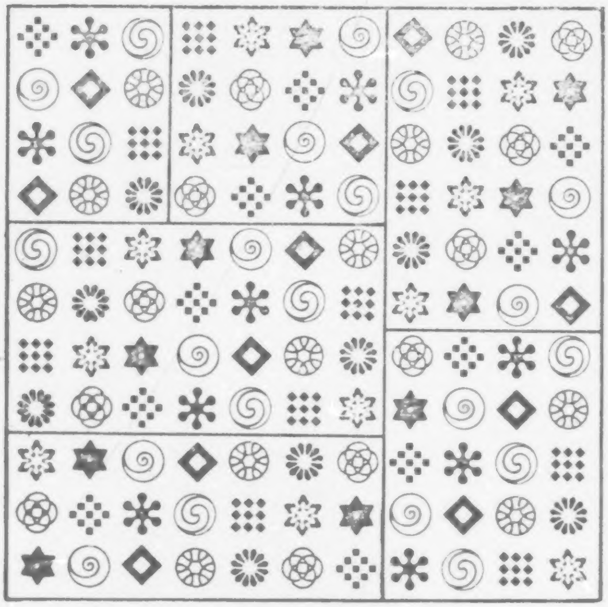
STAR SEARCH, Page 3

1) 5
2) 19
3) 1
4) 5
5) 2
6) 3
7) 0
8) 1
9) 1
10) 3

MULTIBASE CHART, Page 5

2	6	3
7	10	8

DESIGN MATRIX PUZZLE, Page 6



MATH PUN FUN, Page 7

AREA VOLUME LENGTH
METER INCHES MEASURE

RULERS

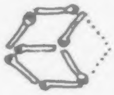
ADD–SUB SLIDE RULE, Page 9–10

1) 5_7
2) 10_7
3) 11_7
4) 5_7
5) 15_7
6) 15_7
7) 15_7
8) 20_7
9) 3_7
10) 1_7
11) 3_7
12) 6_7
13) 6_7
14) 10_7

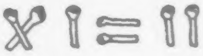
+	○	→	↓	←	↑	→○
○	○	→	↓	←	↑	→○
→	→	↓	←	↑	→○	→→
↓	↓	←	↑	→○	→→	→↓
←	←	↑	→○	→→	→↓	→←
↑	↑	→○	→→	→↓	→←	→↑
→○	→○	→→	→↓	→←	→↑	↓○

MOVING MATCHES, Page 11

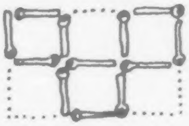
I.



II.



III.



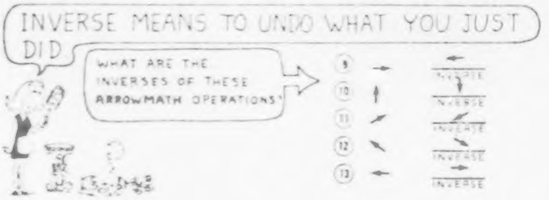
DIVISIBILITY, Page 12

a) 8, 10, 12	e) 9, 10, 12
b) 8, 10	f) 10, 12
c) 8, 12	g) 9, 10
d) 12	h) 9

ARROWMATH, Pages 14–15

1) Yes
2) No
3) Addition
4) Multiplication

① 6 → = 7
② 8 ↓ → = 14
③ 9 ↗ ↓ = 10
④ 13 ↖ ↑ = 2
⑤ 16 ↗ ↗ ↗ = 4
⑥ 7 → ← = 7
⑦ 12 ↗ ↙ = 12
⑧ 18 ↑ ↓ = 18


INVERSE MEANS TO UNDO WHAT YOU JUST DID
WHAT ARE THE INVERSES OF THESE ARROWMATH OPERATIONS?
⑨ → ← INVERSE
⑩ ↑ ↓ INVERSE
⑪ ↗ ↙ INVERSE
⑫ ↖ ↘ INVERSE
⑬ ← → INVERSE

HOW MANY ?, Page 16

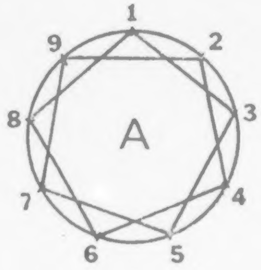
Pentagons:	18
Squares:	31
Composites:	13
License Plates	3^3 or 27

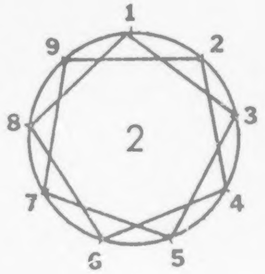
MONEY MATCHING, Page 17

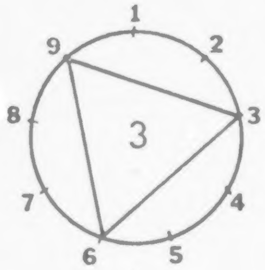
\$ 1	Washington
\$ 2	Jefferson
\$ 5	Lincoln
\$ 10	Hamilton
\$ 20	Jackson
\$ 50	Grant
\$ 100	Franklin

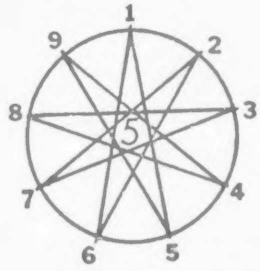
MULTIPLE MAGIC, Page 18–19

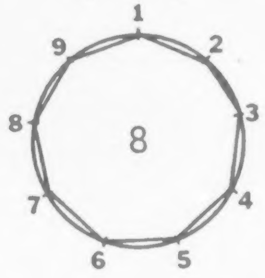
B) 9 or 1 C) 4 or 6 D) 5
E) 2 or 8 F) 4 or 6

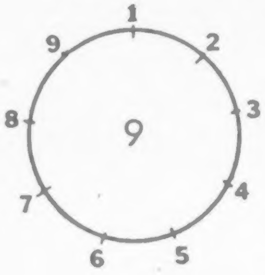

A
1
2
3
4
5
6
7
8
9


2
1
2
3
4
5
6
7
8
9


3
1
2
3
4
5
6
7
8
9


5
1
2
3
4
5
6
7
8
9


8
1
2
3
4
5
6
7
8
9


9
1
2
3
4
5
6
7
8
9

COIN CAPERS, Page 21

A) Hold the nickel and either force the penny between the nickel and the dime or hit the nickel with the penny causing the dime to move away from the nickel.

B) 12 pennies.

C) Always fill the vertex that you have just moved from so that you don't fill two vertices from the same point.

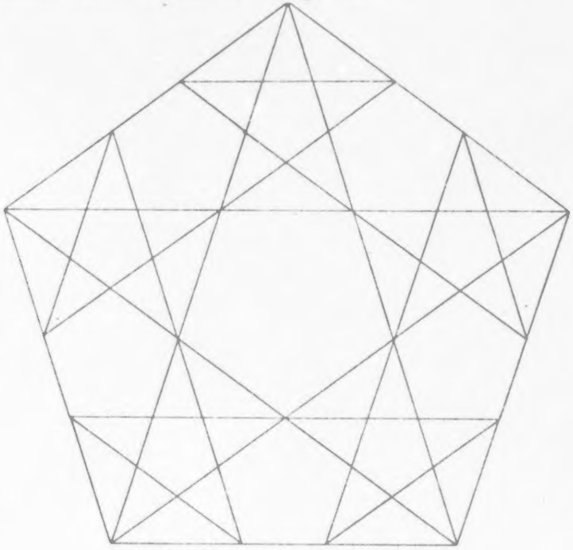
A WHOLE THING, Page 23

1	2
a) 1/4	a) 1/2
b) 2 1/2	b) 5
c) 1 1/2	c) 3
d) 2 3/4	

WHICH ONE DIFFERS?, Page 24

1) E 2) B 3) E 4) C 5) B

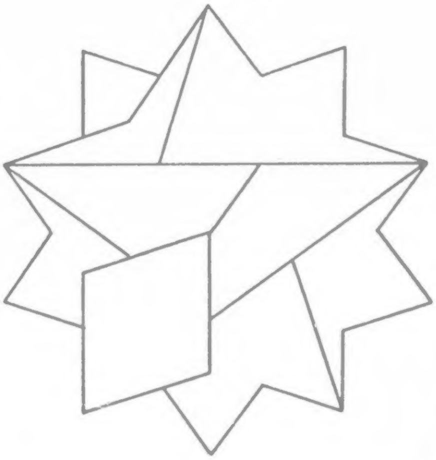
EQUATION PUZZLE, Page 26



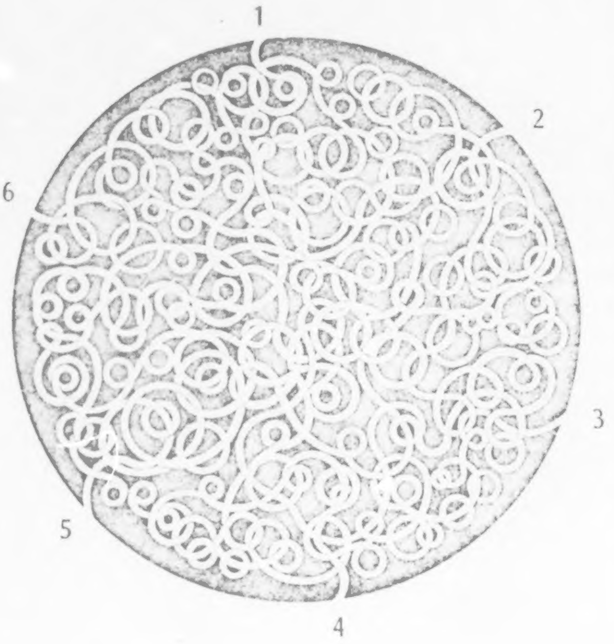
HOW BIG IS TEN MILLION?, Page 27

Miami to Washington

POLYHEDRA PUZZLE, Page 28



SPAGHETTI MAZE, Page 32

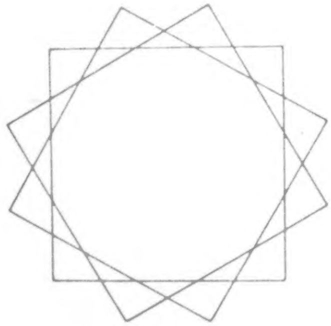


1 – 6, 2 – 4, 3 – 5

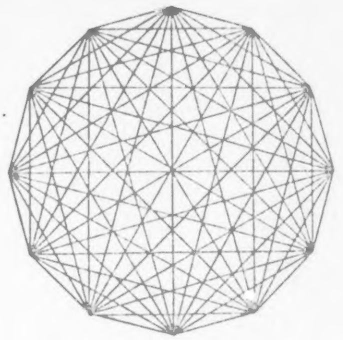
I AM A NUMBER GAME, Page 33

Top: 180
Bottom: 1537

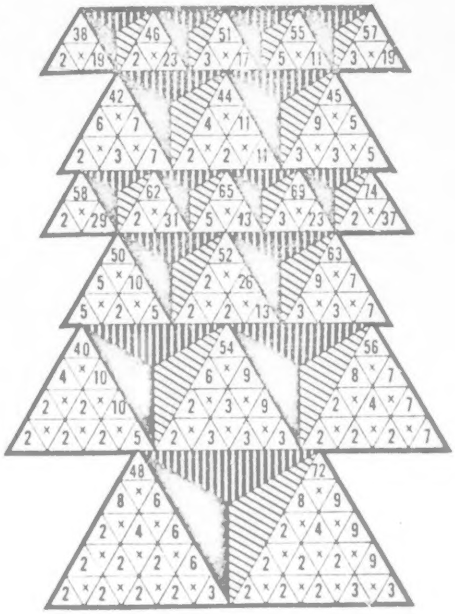
LINE DESIGN, Page 34



LINE DESIGN, Page 34 (cont.)

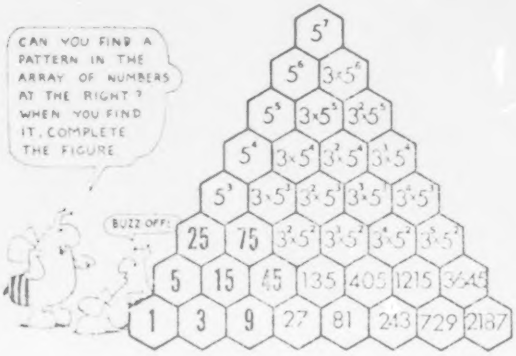


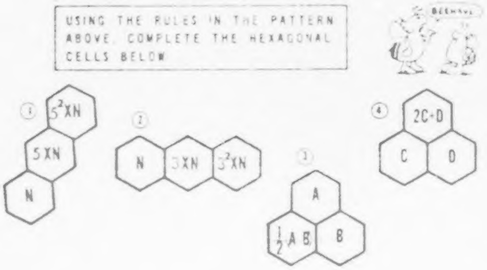
PRIME FACTOR TENTS, Page 35



38
2 × 19
46
2 × 23
51
3 × 17
55
5 × 11
57
3 × 19
42
6 × 7
2 × 3 × 7
44
4 × 11
2 × 2 × 11
45
9 × 5
3 × 3 × 5
58
2 × 29
62
2 × 31
65
5 × 13
69
3 × 23
74
2 × 37
50
5 × 10
5 × 2 × 5
52
2 × 26
2 × 2 × 13
63
9 × 7
3 × 3 × 7
40
4 × 10
2 × 2 × 10
2 × 2 × 2 × 5
54
6 × 9
2 × 3 × 9
2 × 3 × 3 × 3
56
8 × 7
2 × 4 × 7
2 × 2 × 2 × 7
48
8 × 6
2 × 4 × 6
2 × 2 × 2 × 6
2 × 2 × 2 × 2 × 3
72
8 × 9
2 × 4 × 9
2 × 2 × 2 × 9
2 × 2 × 2 × 3 × 3

NUMBER PATTERNS, Page 36


CAN YOU FIND A PATTERN IN THE ARRAY OF NUMBERS AT THE RIGHT ? WHEN YOU FIND IT, COMPLETE THE FIGURE
BUZZ OFF!
5^7
5^6 3×5^6
5^5 3×5^5 $3^2\times5^5$
5^4 3×5^4 $3^2\times5^4$ $3^3\times5^4$
5^3 3×5^3 $3^2\times5^3$ $3^3\times5^3$ $3^4\times5^3$
25 75 $3^2\times5^2$ $3^3\times5^2$ $3^4\times5^2$ $3^5\times5^2$
5 15 45 135 405 1215 3645
1 3 9 27 81 243 729 2187


USING THE RULES IN THE PATTERN ABOVE, COMPLETE THE HEXAGONAL CELLS BELOW
BEEHAVE
①
5^2XN
5XN
N
②
N
3XN
3^2XN
③
A
½AB
B
④
2C+D
C
D

HOW MANY ?, Page 37

Triangles:	47
Prime Numbers:	9
Segments:	10
Angles:	10

TILE TRIAL, Page 38

Answers not unique

1) 5 × 8 − 40 = 0
2) 5 − 40 ÷ 10 = 1
3) 5 + 8 − 10 = 3
4) 8 ÷ (10 ÷ 5) = 4
5) 10 − 8 + 5 = 7
6) 40 ÷ 10 + 5 = 9
7) 10 ÷ 5 + 8 = 10
8) 10 ÷ 5 × 8 = 16

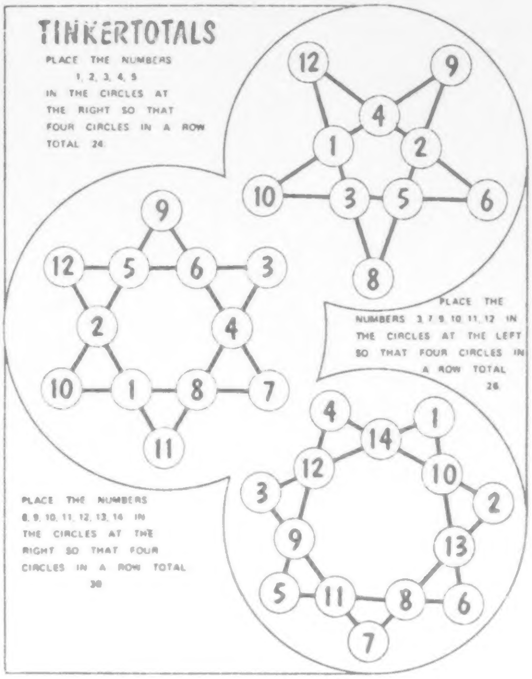
AREA AND PERIMETER, Page 39

Areas may range from 128 for 4 × 32 rectangle to 324 for 18 × 18. Shape for maximum area is a square.

GIVING DIRECTIONS, Page 40

This is intended to be a class discussion exercise.

TINKERTOTALS, Page 46


TINKERTOTALS
PLACE THE NUMBERS 1, 2, 3, 4, 5 IN THE CIRCLES AT THE RIGHT SO THAT FOUR CIRCLES IN A ROW TOTAL 24
12
9
4
1
2
10
3
5
6
8
PLACE THE NUMBERS 3, 7, 9, 10, 11, 12 IN THE CIRCLES AT THE LEFT SO THAT FOUR CIRCLES IN A ROW TOTAL 26
9
12
5
6
3
2
4
10
1
8
7
11
PLACE THE NUMBERS 8, 9, 10, 11, 12, 13, 14 IN THE CIRCLES AT THE RIGHT SO THAT FOUR CIRCLES IN A ROW TOTAL 30
4
14
1
12
10
3
2
9
13
5
11
8
6
7

SOLUTIONS

FIND MY PATTERN, Page 47

0	7	2
8	3	4
9	5	1

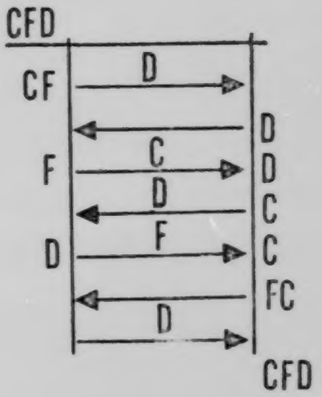
TRELLIS TWISTER, Page 48

Number 6.

CONSTELLATION AREAS, Page 50

1) 2
2) 2
3) 3
4) 3
5) 2 1/2
6) 2
7) 4
8) 3 1/2
9) 3 1/2
10) 3
11) 1 1/2
12) 1 1/2
13) 3
14) 3
15) 8
16) 7 1/2

LOGIC LURE, Page 51



I AM A NUMBER GAME, Page 52

Top:	90
Bottom:	70

PENTAGONAL ARITHMETIC, Page 53

"+"	△	Z	⊖	#	□
△	△	Z	⊖	#	□
Z	Z	⊖	#	□	△
⊖	⊖	#	□	△	Z
#	#	□	△	Z	⊖
□	□	△	Z	⊖	#

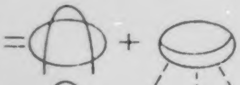
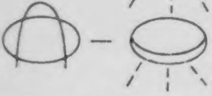
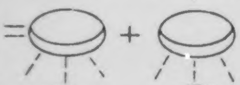
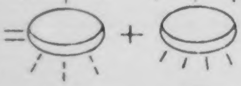
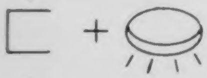
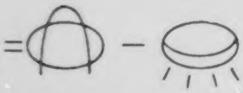
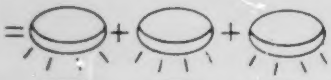
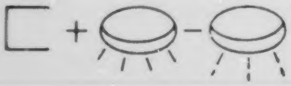
PENTAGONAL ARITHMETIC, Page 53 (cont.)

"X"	△	Z	⊖	#	□
△	△	△	△	△	△
Z	△	Z	⊖	#	□
⊖	△	⊖	□	Z	#
#	△	#	Z	□	⊖
□	△	□	#	⊖	Z

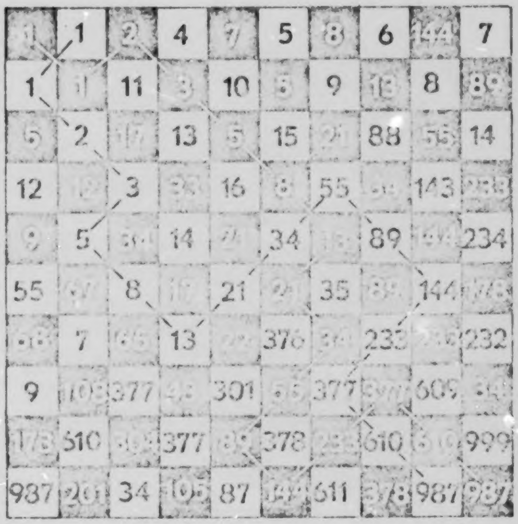
Z acts like one.
△ acts like zero.

NILE TILE, Page 54

These answers may not be unique.

1. $\frac{5}{6}$ = 
2. $\frac{1}{2}$ = 
3. $\frac{2}{3}$ = 
4. $\frac{7}{12}$ = 
5. $\frac{3}{4}$ = 
6. $\frac{5}{12}$ = 
7. $\frac{3}{4}$ = 
8. $\frac{7}{12}$ = 

FIBONACCI SEQUENCE MAZE, Page 55

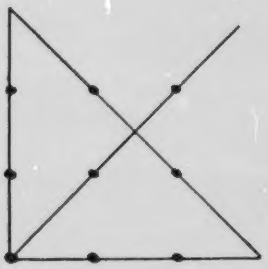


1	1	2	4	7	5	8	6	144	7
1	1	11	3	10	5	9	13	8	89
5	2	[illegible]	13	5	15	21	88	[illegible]	14
12	[illegible]	3	[illegible]	16	8	55	[illegible]	143	[illegible]
9	5	[illegible]	14	[illegible]	34	[illegible]	89	[illegible]	234
55	[illegible]	8	[illegible]	21	[illegible]	35	[illegible]	144	[illegible]
[illegible]	7	[illegible]	13	[illegible]	376	[illegible]	233	[illegible]	232
9	[illegible]	377	[illegible]	301	[illegible]	377	[illegible]	609	[illegible]
[illegible]	610	[illegible]	377	89	378	[illegible]	610	[illegible]	999
987	[illegible]	34	105	87	[illegible]	611	378	987	987

PUZZLERS, Page 58

Top: Cut each link of one chain and use them to connect the remaining 5 chains.

Middle:



Bottom:	100	164
	125	125
	225 or 15^2	289 or 17^2

TRANSYLVANIA TRANSITIVITY, Page 59

From left to right:
Ted, Red, Al, Ned, Sal, Ike, Todd, Ian, Van, and Ed. Initials spell
T R A N S I T I V E.

LOGIC, Page 60

1) 5
2) 2
3) 4
4) 4
5) 1
6) 5
7) 1

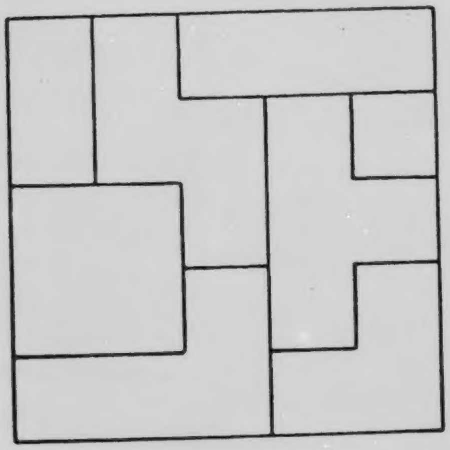
WHICH ONE DIFFERS?, Page 61

A) 4 B) 3 C) 3 D) 2 E) 1

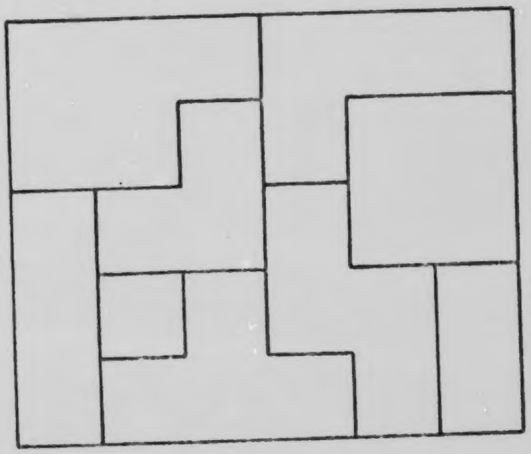
WHAT'S MY WORD?, Page 64

CORNFLAKES

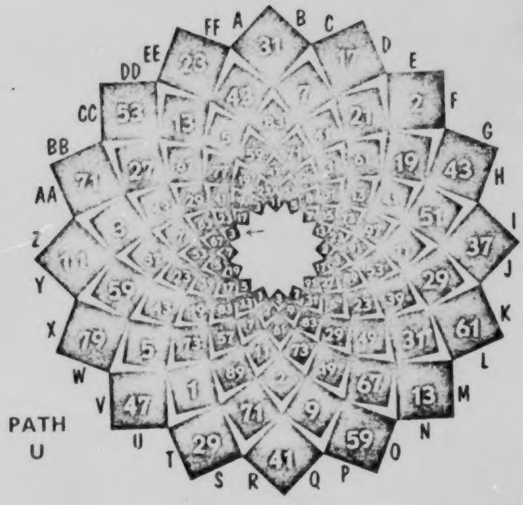
PENTOMINO PUZZLE, Page 65



PENTOMINO PUZZLE, Page 65 (cont.)



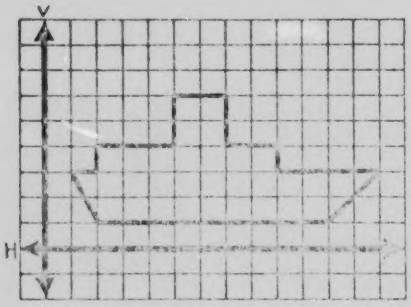
PRIME MAZE, Page 66

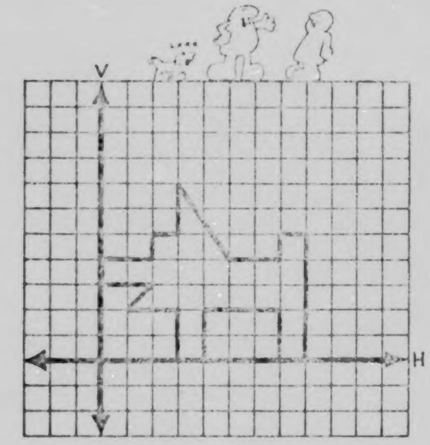

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
AA
BB
CC
DD
EE
FF
PATH
U

CODE MODE, Page 67

Message: One small step for a man,
one giant leap for mankind.

PLOTTING POINTS, Page 70





NUMERAL AREA, Page 71

1)	24 1/2	6)	66
2)	49 1/2	7)	13
3)	50	8)	71
4)	40 1/2	9)	121
5)	54 1/2		

GUESSTIMATES, Page 74

B to C:	about 30 miles
E to G:	about 300 miles
Boro to Center:	about 20 miles
New York to Dallas:	about 1700 miles

FIT THE DISCS, Page 75

$$\begin{array}{ccccccc}
1 & + & \frac{5}{6} & + & \frac{3}{4} & = & \frac{31}{12} \\
+ & & + & & + & & \\
\frac{1}{12} & + & \frac{1}{4} & + & \frac{7}{12} & = & \frac{11}{12} \\
+ & & + & & + & & \\
\frac{5}{12} & + & \frac{1}{3} & + & \frac{1}{2} & = & \frac{5}{4} \\
= & & = & & = & & \\
\frac{3}{2} & & \frac{17}{12} & & \frac{11}{6} & & \blacksquare
\end{array}$$

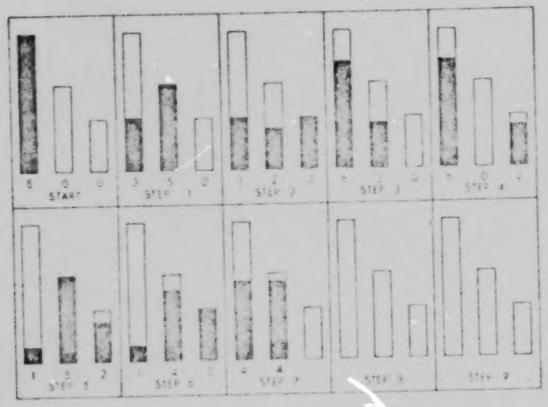
$$\begin{array}{ccccccc}
\frac{1}{6} & + & \frac{3}{4} & + & \frac{1}{12} & = & 1 \\
+ & & + & & + & & \\
\frac{7}{12} & + & \frac{1}{4} & + & \frac{5}{6} & = & \frac{5}{3} \\
+ & & - & & - & & \\
\frac{11}{12} & + & \frac{5}{12} & - & \frac{1}{2} & = & \frac{5}{6} \\
= & & = & & = & & \\
\frac{5}{3} & & \frac{7}{12} & & \frac{5}{12} & & \blacksquare
\end{array}$$

Answers not unique.

FRACTION TILES, Page 76

1) 11/12 + 5/12 = 1 1/3
2) 11/12 – 5/12 = 1/2
3) 7/12 + 1/12 = 2/3
4) 7/12 + 5/12 = 1
5) 7/12 — 5/12 = 1/6
6) 5/12 + 1/12 = 1/2
7) 7/12 + 11/12 = 1 1/2
8) 5/12 – 1/12 = 1/3
9) 7/12 + 11/12 + 5/12 + 1/12 = 2
10) 7/12 + 5/12 – 1/12 – 11/12 = 0

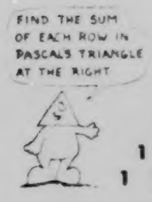
ANCIENT PUZZLE, Page 77


8 0 0
START
3 5 0
STEP 1
STEP 2
STEP 3
STEP 4
STEP 5
STEP 6
STEP 7
STEP 8
STEP 9

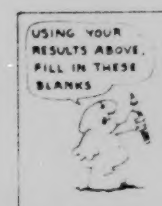
FAMOUS MATHEMATICIAN, Page 78

PASCAL

PASCAL'S TRIANGLE, Page 79

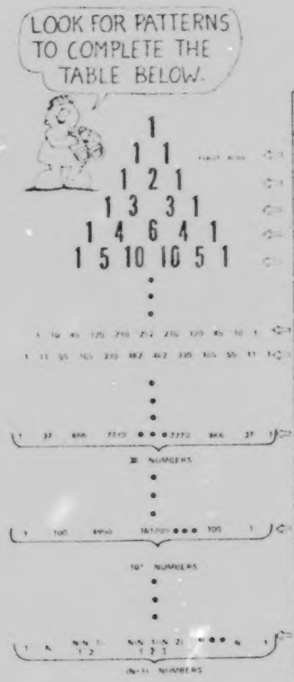

FIND THE SUM OF EACH ROW IN PASCALS TRIANGLE AT THE RIGHT

1
1 1 (1 + 1) = 2
1 2 1 (1 + 2 + 1) = 4
1 3 3 1 (1 + 3 + 3 + 1) = 8
1 4 6 4 1 = 16
1 5 10 10 5 1 = 32
1 6 15 20 15 6 1 = 64
1 7 21 35 35 21 7 1 = 128


USING YOUR RESULTS ABOVE, FILL IN THESE BLANKS

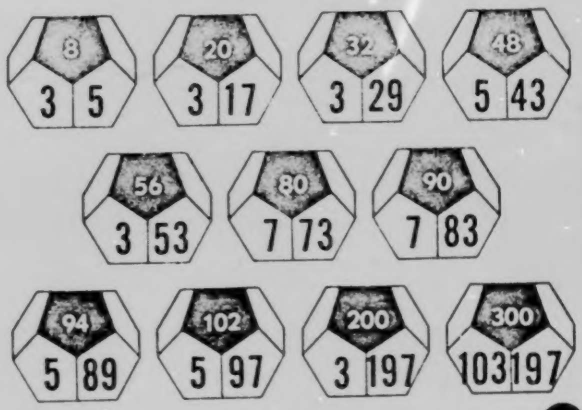
ROW	SUM		(EXPONENT FORM)
1	2	OR	2^1
2	4	OR	2^2
3	8	OR	2^3
4	16	OR	2^4
5	32	OR	2^5
6	64	OR	2^6
7	128	OR	2^7

PASCAL'S TRIANGLE, Page 80


LOOK FOR PATTERNS TO COMPLETE THE TABLE BELOW.
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 10 45 120 210 252 210 120 45 10 1
1 11 55 165 330 462 462 330 165 55 11 1
1 37 666 7770 ● ● ● 7770 666 37 1
NUMBERS
1 100 4950 161700 ● ● ● 100 1
NUMBERS
(N+1) NUMBERS

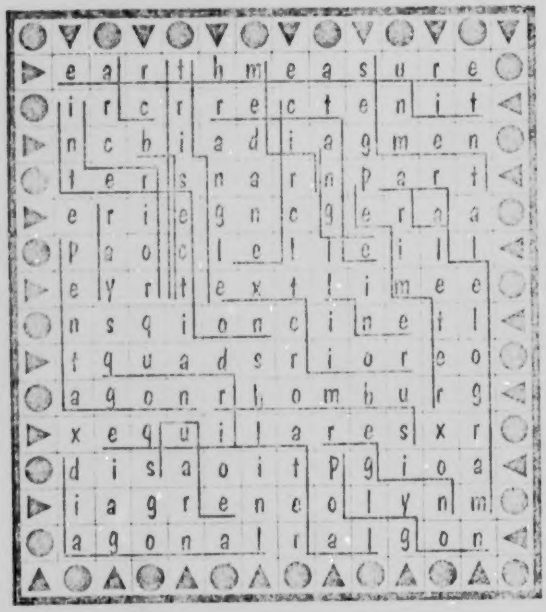
ROW IN PASCAL'S TRIANGLE	SUM OF NUMBERS IN THAT ROW
1	2^1
2	2^2
3	2^3
4	2^4
5	2^5
⋮	⋮
10	2^{10}
11	2^{11}
⋮	⋮
37	2^{37}
⋮	⋮
100	2^{100}
⋮	⋮
N	2^N

GOLDBACH'S CONJECTURE, Page 81

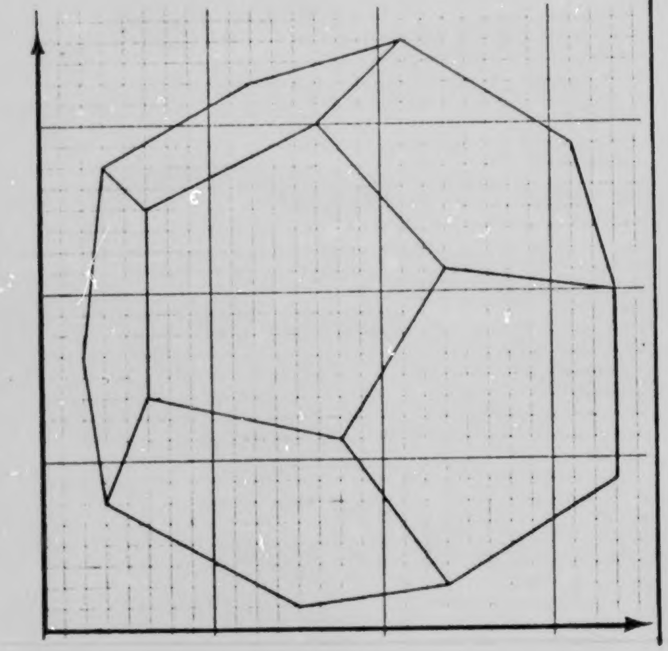

8
3 5
20
3 17
32
3 29
48
5 43
56
3 53
80
7 73
90
7 83
94
5 89
102
5 97
200
3 197
300
103 197

NAME GAME, Page 82

CAN YOU FIND 25 DIFFERENT GEOMETRIC TERMS?



PLOTTING PICTURES, Page 83



TILE TRIAL, Page 84

1) 5 + (18 ÷ 9) − 6 = 1
2) 9 + 5 + 6 − 18 = 2
3) 18 ÷ 9 + 6 − 5 = 3
4) 18 ÷ 6 + 9 − 5 = 7
5) 18 − 9 + 5 − 6 = 8
6) 6 − (18 ÷ 9) + 5 = 9
7) 9 + 5 − (18 ÷ 6) = 11
8) 6 × 5 − (18 ÷ 9) = 28

FIVE HATS, Page 85

Since Xentos answered no, both hats in front could not have been white. Hence either G, G; W, G; or G, W. If the hats were W, G then Appino would have known the color of his hat. Hence, Tenedos' hat must have been grey.

AVERAGES, Page 86

Average temperature:	35°C
Average number of heads:	49
Average weight:	83.125 kg

ORDER SORTER, Page 87

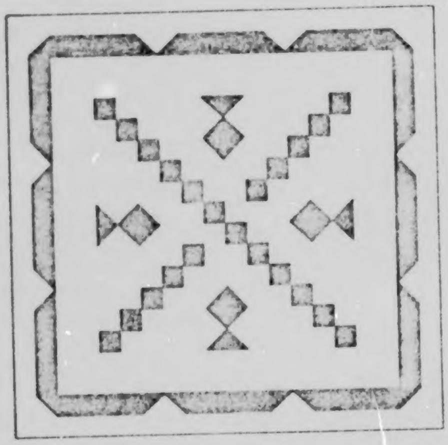
T < X < B < M < C < R < Q < Y < I

I L A R G E S T

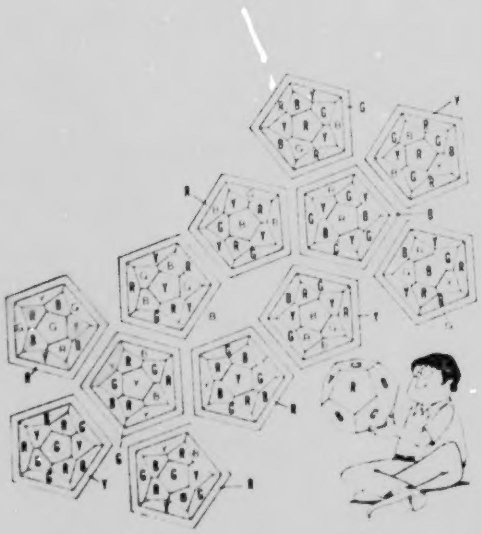
PROFILE PUZZLE, Page 88

Number 12.

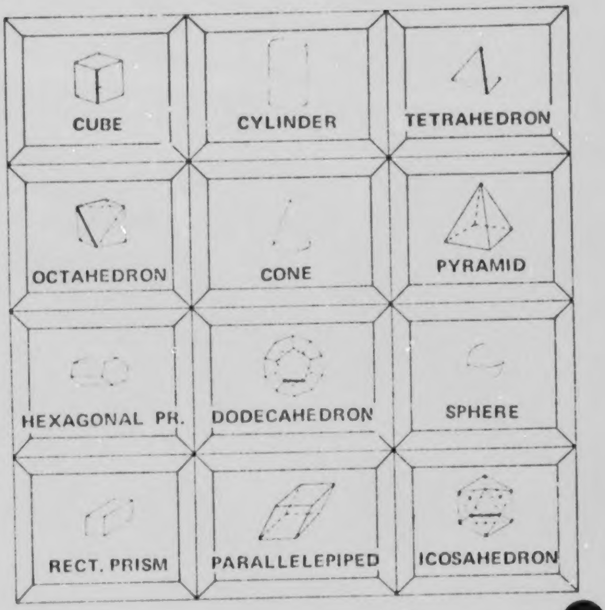
DESIGN VIA CODES, Page 89



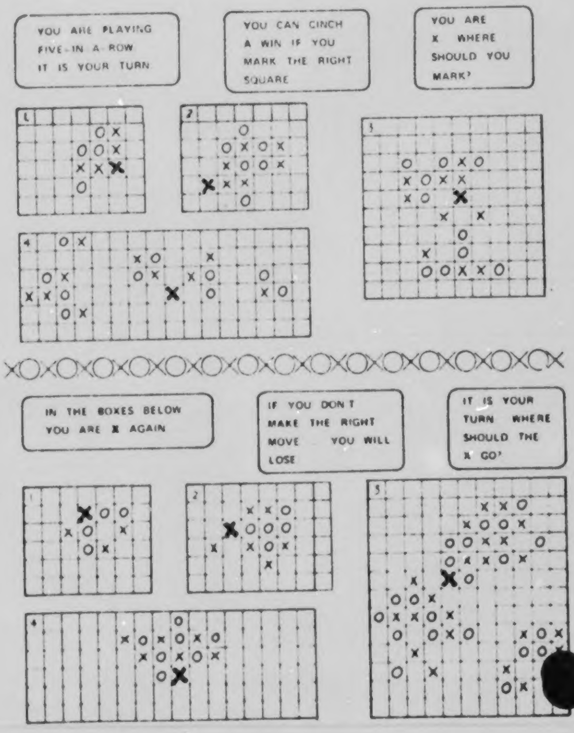
COLORING POLYHEDRA, Page 90



SOLID SHAPES, Page 94


CUBE
CYLINDER
TETRAHEDRON
OCTAHEDRON
CONE
PYRAMID
HEXAGONAL PR.
DODECAHEDRON
SPHERE
RECT. PRISM
PARALLELEPIPED
ICOSAHEDRON

FIVE-IN-A-ROW, Page 95



YOU ARE PLAYING FIVE-IN-A-ROW IT IS YOUR TURN

YOU CAN CINCH A WIN IF YOU MARK THE RIGHT SQUARE

YOU ARE X WHERE SHOULD YOU MARK?

IN THE BOXES BELOW YOU ARE X AGAIN

IF YOU DON'T MAKE THE RIGHT MOVE YOU WILL LOSE

IT IS YOUR TURN WHERE SHOULD THE X GO?

PATTERNS AND SEQUENCES, Page 96

➊ 9 – 18 – 27 – 36 – 45 – 54 – 63

➋ 1 – 4 – 9 – 16 – 25 – 36 – 49

➌ 42 – 37 – 32 – 27 – 22 – 17 – 12

➍ 1^0 – 1^1 – 1^2 – 1 – 1 – 1 – 1

➎ 1 – 3 – 6 – 10 – 15 – 21 – 28

➏ 10 – 5 – $2\frac{1}{2}$ – $1\frac{1}{4}$ – $\frac{5}{8}$ – $\frac{5}{16}$ – $\frac{5}{32}$

➐ .03 – .06 – .09 – .12 – .15 – .18 – .21

➑ 1 – 1 – 2 – 3 – 5 – 8 – 13

➒ $\frac{1}{4}$ – $\frac{7}{12}$ – $\frac{11}{12}$ – $1\frac{1}{4}$ – $1\frac{7}{12}$ – $1\frac{11}{12}$ – $2\frac{1}{4}$

ACCURACY, Page 97

362, 809, 175

CLIMATE CAREFULLY, Page 98

1.365

WHAT'S MY NAME?, Page 99

A. $\frac{1}{8}$ B. $\frac{3}{5}$ C. $\frac{2}{7}$

DRIBBLE DERBY, Page 100

Sam

DIGIT DISCOVERY, Page 101

4	7	2
0	6	8
9	1	5

PHOTO ALBUM PAGES, Page 102

1. a = 2″, b = $4\frac{1}{2}$″, c = $1\frac{1}{2}$″
2. d = 7.5 cm, e = 0.9 cm, f = 1.0 cm
3. g = $\frac{3}{4}$″, h = $4\frac{1}{4}$″, i = $1\frac{5}{8}$″

PHOTO ALBUM PAGES, Page 103

1. j = 3 cm, k = 6.8 cm, *l* = 1.0 cm
2. m = 1″, n = $1\frac{1}{2}$″, p = 2″, q = $2\frac{1}{2}$″
3. r = 11 cm, s = 8.5 cm, t = 5.5 cm, u = 3.5 cm

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SOLUTIONS

FRIDAY IN FRANCE, Pages 1–3

CAR NO	CAR COLOR OR DECORATION	HELMET COLOR OR DECORATION	FINISH IN THE RACE
1	Polka Dot	Grey	4
2	Check	Stripe	1
3	Grey	Black	5
4	Black	Check	2
5	Stripe	Polka Dot	3

LETTER AREA, Page 4

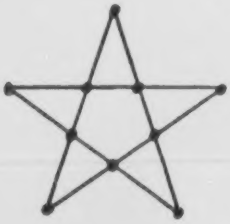
A)	101	H)	43
B)	120	I)	10
C)	32	J)	24
D)	38	K)	31 1/2
E)	31	L)	21
F)	28	M)	48
G)	41		

AREA AND PERIMETERS, Page 5

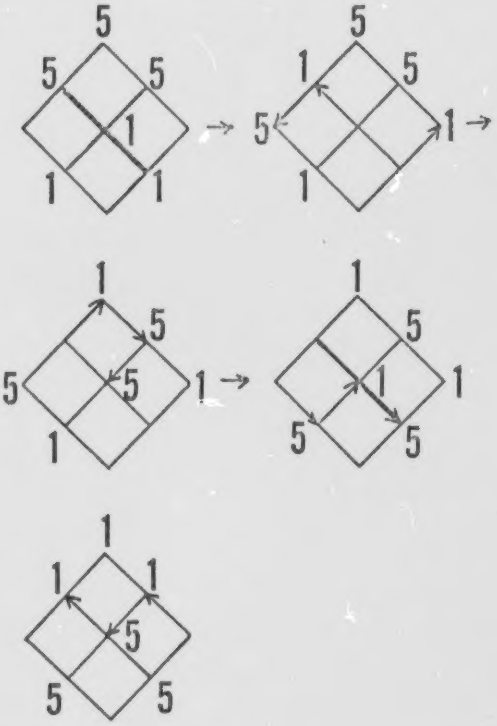
m (A) = 7 1/2"
m (B) = 7 5/8"
m (C) = 8 3/16"
m (D) = 8 1/2"
m (E) = 9 3/4"
m (F) = 12 1/2"
m (G) = 19 1/2"
TRUE

Your answers should not vary from these more than $\frac{1}{8}$" but remember, all measurement is approximate.

COIN CAPERS, Page 6

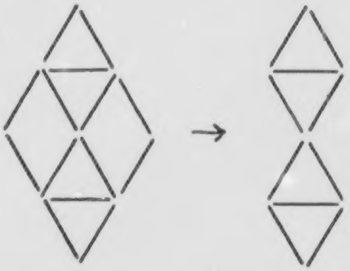


COIN CAPERS, Page 6 (cont.)



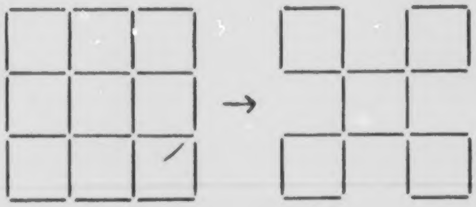
MOVING MATCHES, Page 7

I.



II. XI − V − I = V

III.



SOLUTIONS

BOOK FOUR

MAGIC SQUARE, Page 8

8	1	6
3	5	7
4	9	2

MATH PUN FUN, Page 9

YARD
BASE
SEVEN
NUMBER
POINT
CIRCLE
MATHEMATICS

BLONDES

TILE TRIAL, Page 10

1) $10 \div (4 + 1) + 12 - 13 = 1$
2) $10 \div (4 + 1) \times (13 - 12) = 2$
3) $(13 - 12 + 10 + 1) \div 4 = 3$
4) $(13 + 12 - 10 + 1) \div 4 = 4$
5) $12 \div 4 + 13 - 10 - 1 = 5$
6) $12 \div (4 \times 1) + 13 - 10 = 6$
7) $(13 + 12 + 10) \div (1 + 4) = 7$
8) $13 - 12 + 10 + 1 - 4 = 8$

Answers are not unique.

STAR SEARCH, Page 11

1) 5
2) 17
3) 9
4) 3
5) 10
6) 2
7) 5
8) 0

PROFILE PUZZLE, Page 13

1) K
2) G
3) C
4) H
5) F
6) A
7) D
8) J
9) E
10) B
11) L
12) I

FAMOUS MATHEMATICIAN, Pages 14–15

ARCHIMEDES

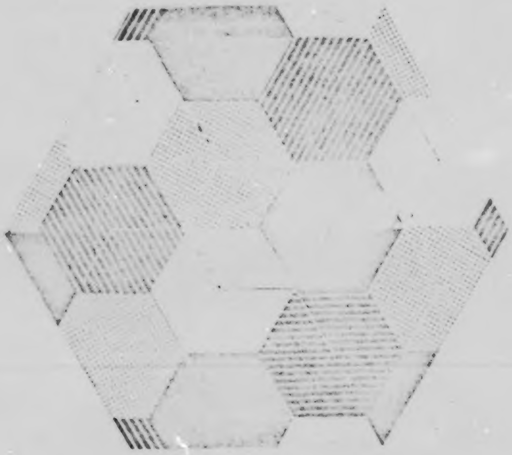
WANTED, Page 16

1) 4
2) 6
3) 5
4) 1
5) 3
6) 2
7) 8
8) 7

SOLUTIONS

BOOK FOUR

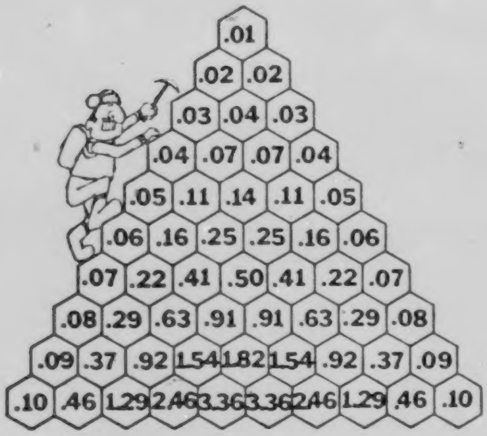
QUILT QUIZ, Page 17



I'M A NUMBER GAME, Pages 18–19

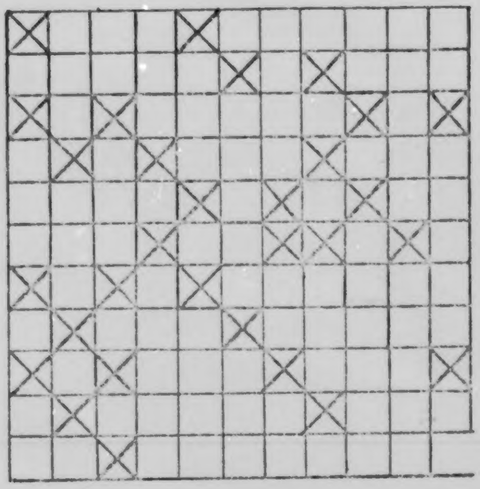
A) 13 or 31	D) 256
B) 3/11	E) 624
C) 315	F) 147

SUM DECIMALS, Page 21



.01
.02 .02
.03 .04 .03
.04 .07 .07 .04
.05 .11 .14 .11 .05
.06 .16 .25 .25 .16 .06
.07 .22 .41 .50 .41 .22 .07
.08 .29 .63 .91 .91 .63 .29 .08
.09 .37 .92 1.54 1.82 1.54 .92 .37 .09
.10 .46 1.29 2.46 3.36 3.36 2.46 1.29 .46 .10

PRIME PATTERN, Page 24



RATIO, Page 25

1) 4/8	5) 8/7	9) 8/10
2) 3/7	6) 7/4	10) 10/8
3) 3/4	7) 4/10	
4) 12/10	8) 12/7	

A WHOLE THING, Page 27

1a) 1/6	2a) 1/5	3a) 3/14
1b) 1 1/2	2b) 19/20	3b) 14 sqs
1c) 2/3	2c) 1/20	3c) 4 sqs

BASE FOURTEEN, Page 28

$\text{FOUR}_{14} = 2\,(2744) + 7\,(196) + 11\,(14) + 8 = 7022$

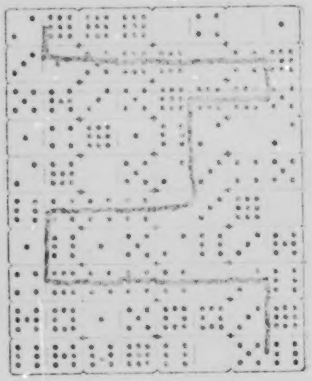
$\text{SIX}_{14} = 9\,(196) + 5\,(14) + 0 = 1834$

$\text{EIGHT}_{14} = 1\,(38416) + 5\,(2744) + 3\,(196) + 4\,(14) + 10 = 52790$

A WHOLE THING, Page 29

area of CDKL = $\frac{1}{3}$
area of CDK = $\frac{1}{6}$
area of BGHM = $1\frac{2}{3}$
area of CEJL = $\frac{2}{3}$
area of DFHK = $\frac{5}{6}$
area of CFHK = 1
area of EFHJ = $\frac{1}{2}$

DOMINOE FACTORY MAZE, Page 30



INTEGERS, Pages 34–35

+	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
-6	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
-5	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1
-4	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2
-3	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3
-2	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4
-1	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5
0	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
1	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7
2	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
3	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
4	-2	-1	0	1	2	3	4	5	6	7	8	9	10
5	-1	0	1	2	3	4	5	6	7	8	9	10	11
6	0	1	2	3	4	5	6	7	8	9	10	11	12

INTEGERS, Pages 34–35 (cont.)

1) P + P = P
2) 3 + 5 = 8
3) P + N = P or N or 0
4) -3 + 5 = 2
5) -9 + 4 = -5
6) -6 + 6 = 0
7) N + N = N
8) -7 + (-5) = -12

1) P × P = P
2) 5 × 6 = 30
3) P × N = N
4) +5 × -6 = -30
5) 3 × (-4) = -12
6) N × N = P
7) -4 × -5 = 20

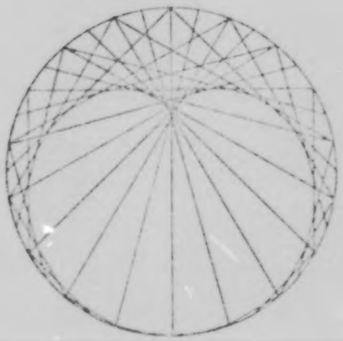
×	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
-6	36	30	24	18	12	6	0	6	-12	-18	-24	-30	-36
-5	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30
-4	24	20	16	12	8	4	0	-4	-8	-12	-16	-20	-24
-3	18	15	12	9	6	3	0	-3	-6	-9	-12	-15	-18
-2	12	10	8	6	4	2	0	-2	-4	-6	-8	-10	-12
-1	6	5	4	3	2	1	0	-1	-2	-3	-4	-5	-6
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
2	-12	-10	-8	-6	-4	-2	0	2	4	6	8	10	12
3	-18	-15	-12	-9	-6	-3	0	3	6	9	12	15	18
4	-24	-20	-16	-12	-8	-4	0	4	8	12	16	20	24
5	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30
6	-36	-30	-24	-18	-12	-6	0	6	12	18	24	30	36

DECODE. . ., Page 36

This message can be decoded if you move up and to the right. If a place if filled, place the word below the last word.

SOLUTIONS

LINE DESIGN, Page 37



ROCK TALK, Page 38

Bob	Drums
Denny	Piano
Gil	Bass
Pete	Guitar

ARROWMATH, Page 39

SOLVE

① 8 → = 13

② 13 ↗ = 17

③ 8 ↖ ↗ = 11

④ 13 → ↗ ← = 17

⑤ 11 → → ↗ ↗ ← = 8

⑥ 12 → ↗ ↖ ↗ → ↗ ↗ ↗ ↗ ↗ ← ↖ → = 8

⑦ DOES 21 → HAVE ANY MEANING? NO

⑧ DOES 4 ↑ OR ↓ HAVE ANY MEANING? NO

⑨ WHAT IS THE INVERSE OF ↗? ↙

⑩ DOES 7 → 5 HAVE A MEANING? NO

ARROWMATH, Page 40

SOLVE

① 6 → = 14

② 6 → → = 24

③ 3 ↗ → = 24

④ 15 → → = 11

⑤ 8 ↗ → = 54

⑥ 8 → ↗ = 252

⑦ 11 → ↗ = 270

⑧ ARE OPERATIONS ↘ AND ↗ DEFINED? NO

⑨ IN PROBLEMS 5 & 6 WAS 8 ↗ → = 8 → ↗ ? NO

⑩ IS 6 → → EQUAL TO 6 → → ? NO

⑪ ARE ← AND → INVERSES? NO

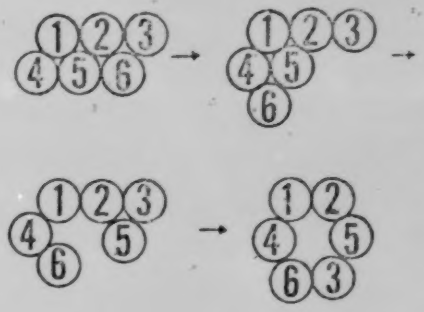
⑫ INVENT A MATH SYSTEM OF YOUR OWN AND TRY IT ON YOUR FRIENDS

WHICH ONE DIFFERS?, Page 41

A) 2
B) 1
C) 5
D) 3
E) 4

COIN CAPERS, Page 42

48 coins: 24 heads, 24 tails

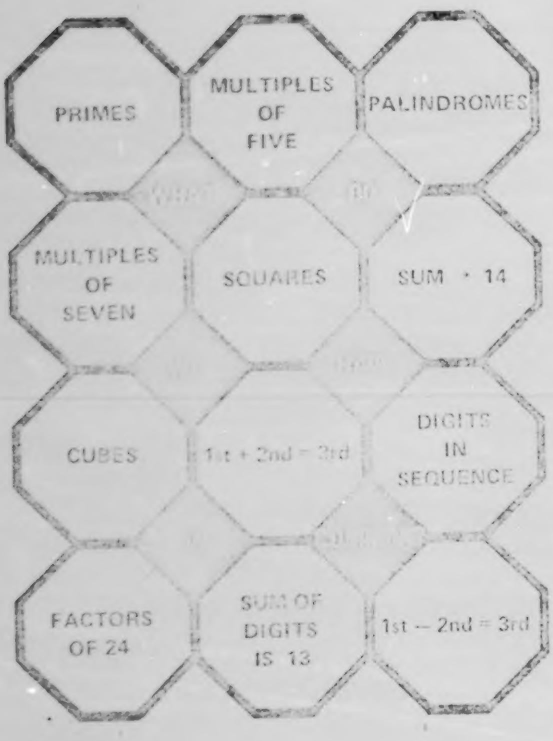


METRIC MEASURE, Page 43

1) 57mm or 5.7cm
2) 92mm or 9.2cm
3) 35mm or 3.5cm
4) 22mm or 2.2cm
5) 57mm or 5.7cm
6) 35mm or 3.5cm
7) 13mm or 1.3cm
8) 8mm or .8cm
9) 21mm or 2.1cm

Remember, all measurement is approximate.

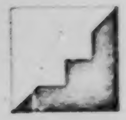
WHAT DO WE..., Page 44

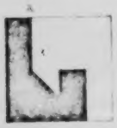

PRIMES
MULTIPLES OF FIVE
PALINDROMES
MULTIPLES OF SEVEN
SQUARES
SUM = 14
CUBES
1st + 2nd = 3rd
DIGITS IN SEQUENCE
FACTORS OF 24
SUM OF DIGITS IS 13
1st – 2nd = 3rd

AVERAGES, Page 45

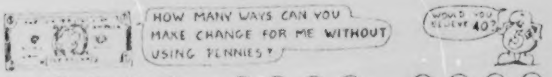
Average Sales:	$108,500.00
Tigers' Average Score:	56
Opponents' Average Score:	47
Average Diameter:	101,830

WHICH ARE NOT CONGRUENT?, Page 46

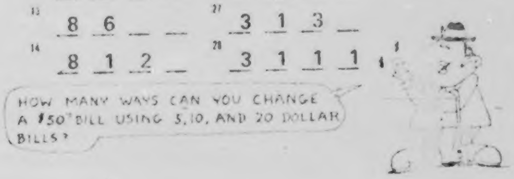




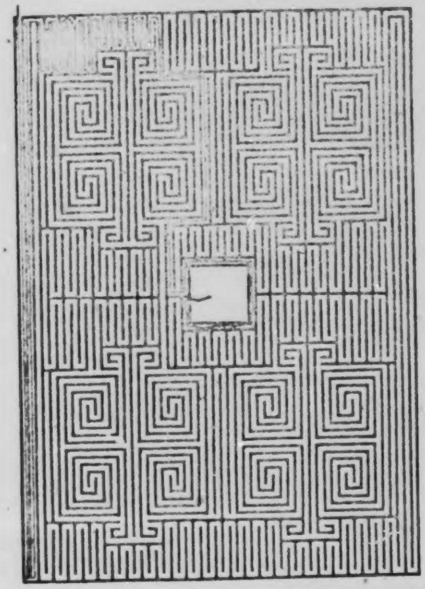
CHANGE PROBLEM, Page 47


HOW MANY WAYS CAN YOU MAKE CHANGE FOR ME WITHOUT USING PENNIES?
WOULD YOU BELIEVE 40?

	5¢	10¢	25¢	50¢
1	20			
2	18	1		
3	16	2		
4	15		1	
5	14	3		
6	13	1	1	
7	12	4		
8	11	2	1	
9	10	5		
10	10		2	
11	10			1
12	9	3	1	
13	8	6		
14	8	1	2	
15	8	1		1
16	7	4	1	
17	6	7		
18	6	2	2	
19	6	2		1
20	5		3	
21	5		1	1
22	5	5	1	
23	4	8		
24	4	3	2	
25	4	3		1
26	3	6	1	
27	3	1	3	
28	3	1	1	1
29	2	9		
30	2	4	2	
31	2	4		1
32	1	2	3	
33	1	2	1	1
34	1	7	1	
35		10		
36		5	2	
37		5		1
38			4	
39			2	1
40				2


HOW MANY WAYS CAN YOU CHANGE A $50⁰⁰ BILL USING 5, 10, AND 20 DOLLAR BILLS?

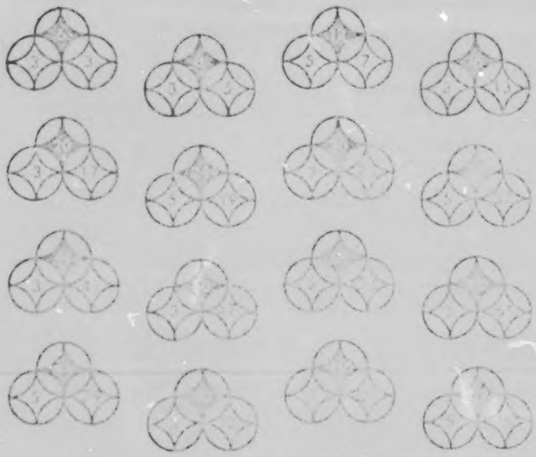
TRACE A PATH TO THE CENTER, Page 48



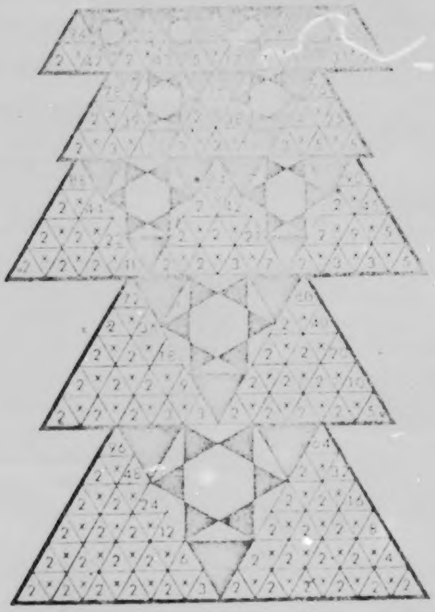
SOLUTIONS

GOLDBACH'S CONJECTURE, Page 49

Answers are not unique.



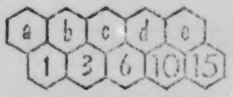
PRIME FACTOR TENTS, Page 50

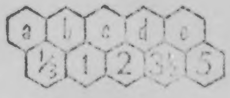


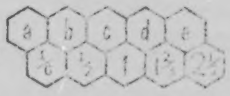
WHAT'S MY WORD?, Page 51

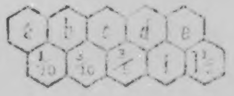
CLOTHESPIN

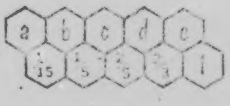
A WHOLE THING, Page 52

1

a
b
c
d
e
1
3
6
10
15

2

a
b
c
d
e
1/3
1
2
3⅓
5

3

a
b
c
d
e
1/6
1/2
1
1⅔
2½

4

a
b
c
d
e
1/10
3/10
3/5
1
1½

5

a
b
c
d
e
1/15
1/5
2/5
2/3
1

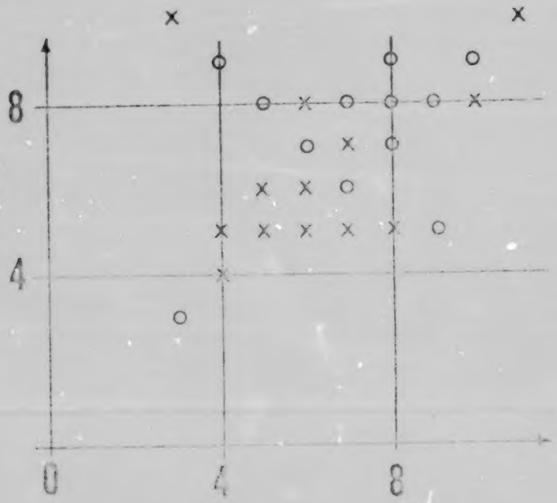
HOW MANY?, Page 53

1) 15
2) 27
3) 101
4) 24

FRACTION TILES, Page 54

1) 1/2 – 1/6 + 1/4 = 7/12
2) 1/2 + 1/6 – 1/4 = 5/12
3) 1/2 + 1/3 + 1/6 = 1
4) 1/2 – 1/3 – 1/6 = 0
5) Can't be done.
6) 1/4 + 1/6 – 1/3 = 1/12
7) 1/2 + 1/3 – 1/6 = 2/3
8) 1/2 + 1/6 + 1/4 = 11/12

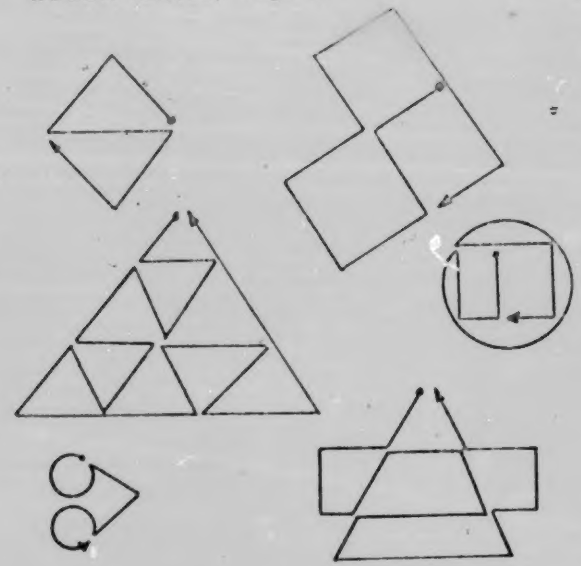
DESI AND CAROL, Page 55



FAMOUS MATHEMATICIAN, Page 56

EULER

EULER LINES, Page 57

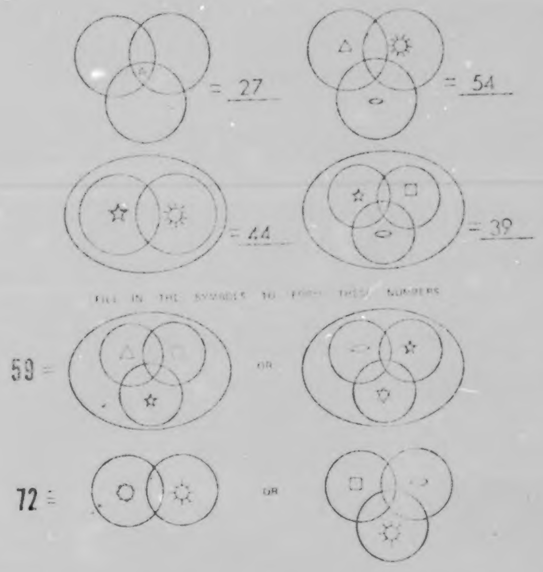


1) 2
2) 4
3) 4
4) 0

TRELLIS TWISTER, Page 62

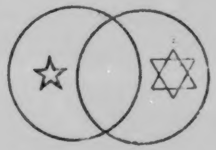
Number 7.

WAY-OUT NUMERATION, Page 65

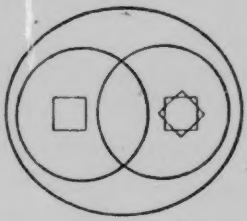

= 27
= 54
= 44
= 39
FILL IN THE SYMBOLS TO FORM THESE NUMBERS
59 =
OR
72 =
OR

These answers may not be unique.

30.

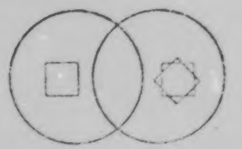


31.



WAY-OUT NUMERATION, Page 65 (cont.)

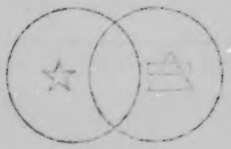
32.



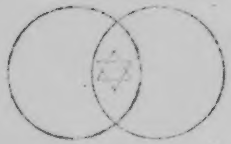
33. None

34. None

35.



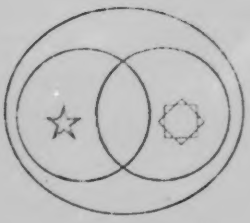
36.



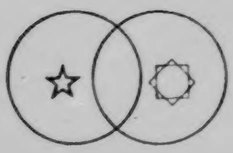
37. None

38. None

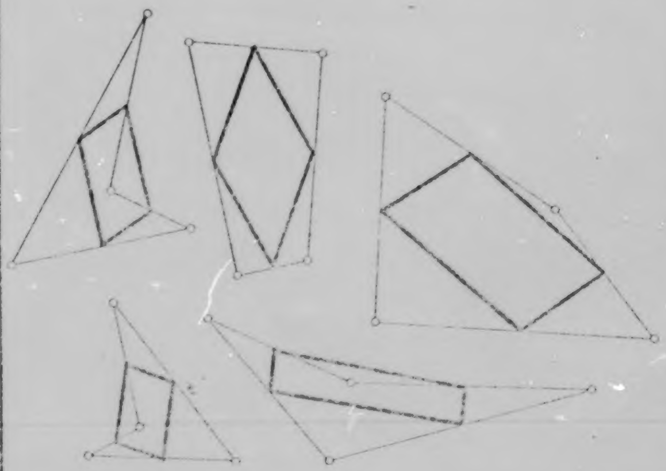
39.



40.

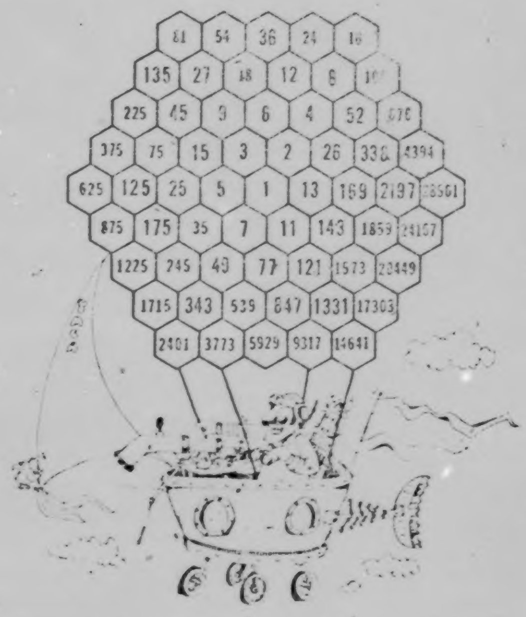


QUADRILATERAL QUEST, Page 66



In each case a Parallelogram is formed.

NUMBER PATTERNS, Page 67


81 54 36 24 16
135 27 18 12 8 104
225 45 9 6 4 52 676
375 75 15 3 2 26 338 4394
625 125 25 5 1 13 169 2197 28561
875 175 35 7 11 143 1859 24167
1225 245 49 77 121 1573 20449
1715 343 539 847 1331 17303
2401 3773 5929 9317 14641

Patterns become obvious when a complete factorization is made on each number.

DECODE USING ALPHABET, Page 68

Circles which have the same center but different radii are concentric circles.

TILE TRIAL, Page 69

1) (15 + 4 − 19) × 10 × 22 = 0
2) 22 ÷ (15 − 4) × 10 − 19 = 1
3) 22 − 19 + 10 + 4 − 15 = 2
4) 22 − 19 ÷ (15 − 4 − 10) = 3
5) 22 − 19 + 15 − 10 − 4 = 4
6) 15 − 10 ÷ (19 + 4 − 22) = 5
7) 15 + 19 − 10 − 22 + 4 = 6
8) (15 − 4 + 10) ÷ (22 − 19) = 7

Answers are not unique.

ORDER SORTER, Page 70

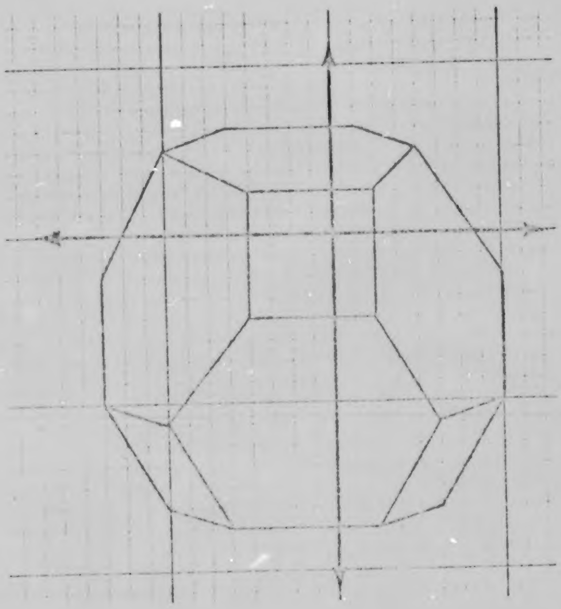
Q < B < T < F < X < S < M < J < D

T R I A N G L E S

WHICH ONE DIFFERS?, Page 72

A) 3 B) 5 C) 2 D) 3 E) 1

PLOTTING PICTURES, Page 73



KNIGHT 'N DAZE, Page 75

	D		
		F	
K			

A			
		K	
I			
	G		E

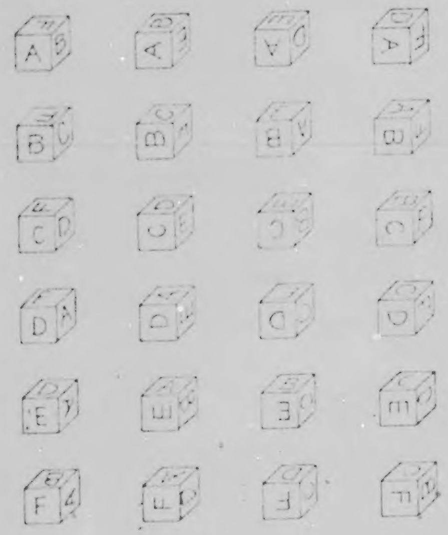
		X		X
	X			
			K	
	X			

3	20	15	10	5
14	9	4	21	16
19	2	25	6	11
24	13	8	17	22
1	18	23	12	[illegible]

CONCENTRIC CIRCLES, Page 76

E and G are concentric.

CUBE FLIP AND TURN, Page 77



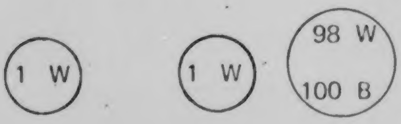
Make a model.

POLYOMINOES, Page 78

Hexaminoes — 35

Figure H can be drawn with seven line segments.

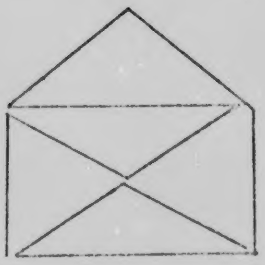
CHANZANIA, Page 79


1 W
1 W
98 W
100 B

No fair shaking the urn.

PUZZLERS, Page 80

B passes A every 12 minutes.

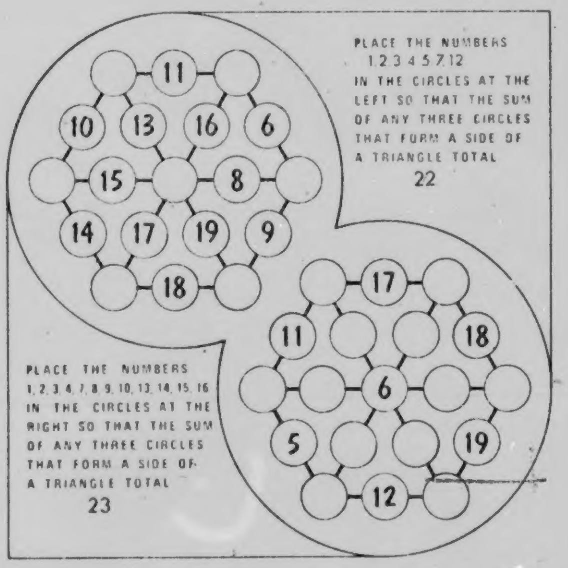


It would take about $11\frac{1}{2}$ days counting once a second, twenty-four hours a day.

HOW MANY ?, Page 81

1) 66 2) 7 3) 72
4) 12 (order of dice is not important)

TINKERTOTALS, Page 82


PLACE THE NUMBERS
1, 2, 3, 4, 5, 7, 12
IN THE CIRCLES AT THE LEFT SO THAT THE SUM OF ANY THREE CIRCLES THAT FORM A SIDE OF A TRIANGLE TOTAL
22
11
10
13
16
6
15
8
14
17
19
9
18
17
11
18
6
5
19
12
PLACE THE NUMBERS
1, 2, 3, 4, 7, 8, 9, 10, 13, 14, 15, 16
IN THE CIRCLES AT THE RIGHT SO THAT THE SUM OF ANY THREE CIRCLES THAT FORM A SIDE OF A TRIANGLE TOTAL
23

SOLUTIONS

NAME GAME, Page 83

Add
Apex
Arc
Area
Arithmetic
Axis
Base
Bisect
Cent
Center
Centimeter
Circle
Circles
Cone
Count
Curve
Decimal
Difference
Divide
Edge
Eight
Eighty
Eleven
Even
Exponent
Face
Fifteen
Five
Four
Fourteen
Fraction
Gram
Height
Hexagon
Identity
Less
Locus
Mathematics
Measure
Measures
Meet
Meter
Midpoint
Minute
Modular
Multiple
Multiplication
Nine
Nonagon
Number
Numeration
Octagon
One
Open
Ounce
Ounces
Parallel
Parallelogram
Pattern
Pentagon
Pi
Plane
Plato
Platonic
Probability
Puzzle
Quart
Radius
Ratio
Ray
Rectangle
Regular
Rhombus
Round
Scale
Section
Second
Segment
Seven
Seventeen
Seventeenth
Six
Sixteen
Sixteenth
Slope
Sum
Ten
Tenth
Tetrahedron
Third
Thirds
Three
Ton
Two
Unit
Vertex
Volume
Weight
Yard
Yards

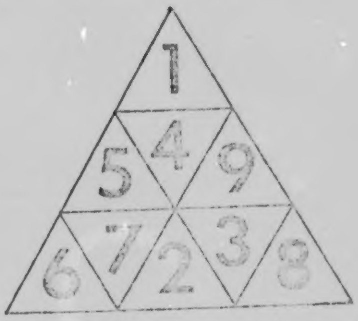
ONE, TWO, THREE, FOUR, . . ., Page 84

1) $(1 + 2 - 3) \times 4 = 0$
2) $1 \times 2 + 3 - 4 = 1$
3) $1 + 2 + 3 - 4 = 2$
4) $(1 + 2) \div 3 \times 4 = 4$
5) $(1 + 2) \times 3 - 4 = 5$
6) $1 \div 2 \times 3 \times 4 = 6$
7) $1 + 2 + 3 + 4 = 10$
8) $(1 + 2) \times 3 + 4 = 13$
9) $1 \times 2 + 3 \times 4 = 14$
10) $1 \times (2 + 3) \times 4 = 20$
11) $1 + [(2 + 3) \times 4] = 21$
12) $1 \times 2 \times 3 \times 4 = 24$

These answers are not unique.

400

FIND MY PATTERN, Page 85



COLORING MATH MAPS, Page 89

Figure	Regions	Colors Needed
A	2	2
B	3	3
C	4	3
D	4	3
E	5	4
F	5	3
G	6	4
H	6	4
I	7	4
J	8	4

PATTERNS AND SEQUENCES, Page 91

1. 6 — 12 — 18 — 24 — 30 — 36 — 42
2. 3 — 9 — 27 — 81 — 243 — 729 — 2187
3. $\frac{1}{2}$ — $\frac{1}{4}$ — $\frac{1}{8}$ — $\frac{1}{16}$ — $\frac{1}{32}$ — $\frac{1}{64}$ — $\frac{1}{128}$
4. .125 — .25 — .375 — .5 — .625 — .750 — .875
5. 6 — 4 — 2 — 0 — −2 — −4 — −6
6. .1 — .1 — .2 — .3 — .5 — .8 — 1.3
7. 1 — 1·2 — 1·2·3 — 24 — 120 — 720 — 5040
8. 1_5 — 4_5 — 12_5 — 20_5 — 23_5 — 31_5 — 34
9. 1_7 — 4_7 — 12_7 — 22_7 — 34_7 — 51_7 — 100_7

POWER PATTERNS, Page 94

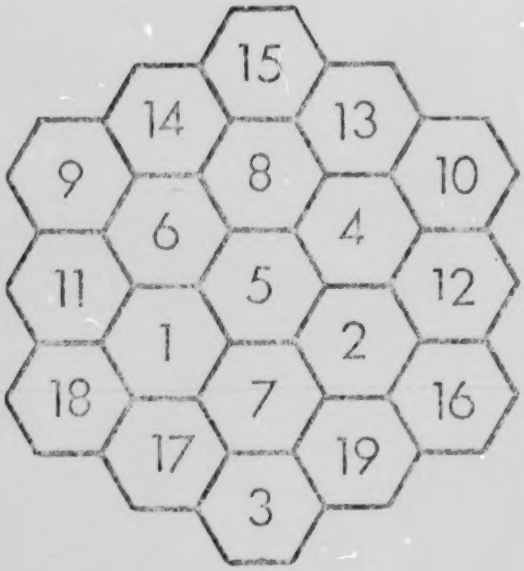
The sum of the cubes of n consecutive counting numbers equals the square of the sum of n consecutive counting numbers.

FIT THE DISCS, Page 95

24	×	$\frac{3}{4}$	×	$\frac{1}{6}$	=	3
×						
$\frac{5}{6}$	×	24	×	$\frac{1}{4}$	=	5
×		×				
$\frac{1}{2}$	×	$\frac{2}{3}$	×	24	=	8
=		=		=		
10		12		1		■

$\frac{1}{2}$	+	$\frac{5}{12}$	+	$\frac{1}{12}$	=	1
+						
$\frac{3}{4}$	+	$\frac{5}{6}$	−	$\frac{7}{12}$	=	1
−		−		+		
$\frac{1}{4}$	+	$\frac{1}{4}$	+	$\frac{1}{2}$	=	1
=		=		=		
1		1		0		■

MAGIC HEXAGON, Page 97



ACCURACY, Page 98

14! = 87, 178, 291, 200

HIDDEN PRODUCTS, Page 99

One-digit factors:

(2, 5)
(2, 6)
(2, 12)
(2, 15)
(2, 20)
(3, 10)
(3, 12)
(4, 3)
(4, 9)
(4, 11)
(4, 17)
(5, 6)
(5, 19)
(5, 20)
(6, 3)
(6, 17)
(7, 3)

(7, 7)
(7, 16)
(8, 3)
(8, 12)
(8, 13)
(8, 20)
(9, 3)
(9, 19)
(10, 5)
(10, 9)
(10, 16)
(10, 18)
(11, 4)
(11, 10)
(11, 12)
(12, 11)
(12, 20)
(13, 6)
(13, 11)
(13, 17)
(14, 3)
(14, 11)
(14, 14)
(14, 18)
(14, 19)
(15, 4)
(15, 7)
(15, 14)
(15, 19)

Two-digit factors:
(3, 20)
(4, 14)
(5, 17)
(6, 9)
(7, 15)
(8, 6)
(10, 12)
(10, 19)
(12, 8)
(14, 20)

Three-digit factors:
(12, 16)

GIANT SLALOM, Page 100

$\frac{7}{12}$

DIGIT DISCOVERY, Page 101

7	91	63
15	55	90
8	64	72

HIT AND RUN, Page 102
83173

FIVE GIRLS, Page 103

	Pennies	Nickels	Dimes	Quarters	Amount
Alice	1	1	3	1	61¢
Betty	1	2	2	1	56¢
Carol	2	1	2	1	52¢
Donna	1	3	1	1	51¢
Eve	2	2	1	1	47¢

PHOTO ALBUM PAGES, Page 104

1. a = $1\frac{1}{2}$", b = $\frac{7}{8}$"
2. c = 4.6 cm, d = 10.1 cm, e = 4.5 cm
3. f = 10 mm, g = 10 mm, h = 23 mm

PHOTO ALBUM PAGES, Page 105

1. i = 1 cm, j = 2.5 cm, k = 1.3 cm, *l* = 3.3 cm
2. m = $\frac{3}{4}$", n = $\frac{7}{8}$", o = 2"
3. p = 2.4 cm, q = 5.2 cm, r = 9.7 cm, s = 4.5 cm

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Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Candy Sticks and Checker Boards.

Make the puzzle shapes in order. After you finish each one, put its task card number and letter on the back of this sheet under "Work Done" for that day. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Candy Sticks and Checker Boards set and booklet. You will find them in the Media Resource Center under the call number GA-793.7-C.

The work you turn in will be this contract, showing which puzzle shapes you have finished. Be ready to show a teacher any of the puzzles they would like to see you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Candy Sticks and Checker Boards

Teacher Information

Grades 1-4; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: Candy Sticks and Checker Boards set and booklet is available from Herrick Creative Components, P.O. Box 4912, Hayward, CA 94548 at $2.95.

Processing: Catalog into the library.

9/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Computers.

There are three tape cassettes with worksheets in this study. Do whichever tape or tapes are checked below. Find out from your teacher whether you are to use the worksheets in a plastic sleeve with a china marking pencil or whether you may write directly on the paper.

☐ Introduction to computers (RT-510.78-I)
☐ Computer Process (RT-510.78-C)
☐ Computer Parts (RT-621.381-C)

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **tape recording...You will find it in the Media Resource Center under the call number shown above.
- **a worksheet to go with the tape.
- **a plastic sleeve and china marking pencil OR tracing paper and an ordinary pencil, OR just a pencil with the worksheet (check with your teacher).

The work you turn in will be your completed worksheets.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Computers

Teacher Information

Grades: 4-5; for one to five students.

Time: 1 period for each of the three tapes.

Assignment: Check which tape or tapes the student is to do. The series should be done in sequence. Teacher's guides are available in the Media Resource Center.

IMC Information

Commerical material: 3 tape cassettes, nos. C-7730 through C-7732 from Photo and Sound, 116 Natoma Street, San Francisco, Ca 94105 at $7.95 each. Additional worksheets available at $1.50 per package of 72.

Processing: Catalog tapes into library. Staple one worksheet into teacher's guide, which should be filed separately in the library. Put 5 copies of worksheet into plastic sleeves. Remaining worksheets are to be sent to school where they may be put in teacher's binders or kept in the ICES file as spares.

Rev. 4/76

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Cross Number Puzzles.

You will do 4 cross number puzzles. They work just like crossword puzzles. The 4 puzzles are in the ICES file. After you finish, check your answers in the book listed below.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the four puzzles...Take a set from the ICES file.
- **the book Fun and Games with Mathematics--Primary by James C. Haugaard...You will find it in the Media Resource Center under the call number 793.7-H.

The work you turn in will be your finished puzzles.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Cross Number Puzzles

Teacher Information

Grades 1 - 3; for one student.

Time: 4 periods.

Assignment: These puzzles provide practice in addition and subtraction of one and two-digit numbers. They should be done in sequence. The answers are in the book. (Note: The book Fun and Games with Mathematics--Primary provides a number of games, manipulatives and graphing activities which, though not suitable for ICES, may provide classroom enrichment for able math students.)

IMC Information

Commercial material: Book from Contemporary Ideas, P.O. Box 1703, Los Gatos, Ca 95030; Prentice-Hall Media, 150 White Plains Road, Tarrytown, N.Y., 10591; $5.95 each.

Consumables: Prepare 15 sets of the Cross Number Puzzles for the ICES file. Keep a set of masters.

Processing: Place the book in an envelope so that pages can be torn out for reproduction without becoming lost. Catalog the book into the library.

3/76

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be A First Book of Space Form Making.

You will make many unusual shapes from paper. You may want to decorate your shapes to make holiday decorations, a mobile, a village or some other project.

Do:

☐ Tasks 1 to 15

☐ Tasks 16 to 25

☐ Tasks 26 to 36

☐ Tasks 37 to 46

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the book...You will find it in the Media Resource Center under the call number 793.7.

**a ballpoint pen, ruler, scissors, unlined paper, construction paper or tagboard, glue, a protractor and a compass.

**a box or other place to keep the forms you make.

**if you want to decorate your forms, you will need art supplies such as crayons or felt pens, pictures from magazines, thread, paper clips, and so on.

The work you turn in will be your completed forms.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
A First Book of Space Form Making.

Teacher Information

Grades 4 - 6; for one student.

Time: 10 periods per assignment, or 40 periods in all.

Assignment: Tasks must be done in sequence. Check which set the student is to work on.

IMC Information

Commercial material: Book from Marie's Educational Materials, 193-5 South Murphy Avenue, Sunnyvale, Ca 94086; or from GeoBooks, 179 Oak Street, Apt. U, San Francisco, Ca 94102; $2.95 ea.

by George Fouke

Processing: Catalog book into the library.

3/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Four Square.

Make the puzzle shapes in order. After you finish each page, write its number on the back of this sheet under "Work Done" for that day. If there is a question, write your answer on the back of this sheet. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Four Square set and booklet. You will find them in the Media Resource Center under the call number GA-793.7-F.

The work you turn in will be this contract, showing which pages you have finished. Be ready to show a teacher any of the puzzles they would like to see you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Four Square

Teacher Information

Grades 3-6; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: *Four Square* set and booklet is available from Merrick Creative Components, P.O. Box 4912, Hayward, CA 94548 at $1.50.

Processing: Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Fun Squares.

Do the cards in order. Keep going unless the cards get too hard for you. If that happens, mark down the number of the last card you have solved and see your teacher.

Materials you will need are

**your copy of this contract...You will find it in the ICES file.

**Fun Squares Set--The set of pegs and pegboard is kept in the Media Resource Center.

**Fun Squares Task Cards...You will find the set in the Media Resource Center under the call number KS 793.7-F.

**Pencil and paper or 5"x8" card.

The work you turn in will be

Show a teacher how you solve these cards: B-6, B-11, C-3 and D-6. Make one or more new cards for Fun Squares. (These cards are called SAM cards.)

When you need help, see

Try to finish your study by

MATH
Fun Squares

Teacher Information

Grades 4-6; for one student

Time: Approximately 15 periods

Assignment: The entire series of cards is usually assigned together. However, for more frequent follow-up, the set could be assigned in two portions: (1) A-1 through B-11; (2) C-1 through E-1. The student should demonstrate for you his solutions to the cards indicated.

IMC Information

Commercial Material: The cards and peg set are available from Selective Educational Equipment, Inc., 3 Bridge Street, Newton, MA 02195 at \$4.00 and \$3.00, respectively.

Processing: Catalog the card set into the library. Send peg sets to library uncataloged, but with pocket, blue checkout card and copy number.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Fun With Geometric Activities

This study is just what the Title says. Choose as many as you like. You must trace many of the figures in the book before doing what is asked with them.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of Fun With Geometric Activities...Check it out from the Media Resource Center. It will be found under the call number 516-H.
**$\frac{1}{4}$ inch graph paper (for pages 1-36).
**pencil.
**paper to be used for tracing.

The work you turn in will be

☐ your work for the activities you choose. List the pages you have chosen here

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Fun With Geometric Activities

Teacher Information

Grades 2-6; for one student.

Time: One to many periods depending on the number of activities selected.

Assignment: Assign activities keeping in mind the level of difficulty with which the pupil can cope.

IMC Information

Commercial material: Paperback workbook Fun With Geometric Activities is available from Prentice-Hall Learning Systems, Inc. P.O. Box 47X, Englewood Cliffs N. J., 07632, at $5.95. Also available at Warren's Educational Supplies 1000 Detroit Ave., Concord CA, 94518, at the same price.

Processing: Catalog book into library.

9/77

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Games, Puzzles, Patterns.

This is the first section of the book Fun and Games with Mathematics, by Haugaard and Horlock. There are 36 pages of math puzzles and games in this section. Some of them may be used with tracing paper or lined paper, others may work best with a plastic sleeve and a china marking pencil. A few pages may need to be duplicated so that you can work with them. If you feel this needs to be done, be sure to see your teacher.

Check again with your teacher in _______ days.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**the book Fun and Games with Mathematics...You will find it in the Media Resource Center under the call number 793.7-H.
**tracing paper and pencil OR a plastic sleeve and china marking pencil OR duplicated copy of the page you are working on (check with your teacher).

The work you turn in will be the records you keep on the back of this contract. Be ready to show your teacher how you solved the puzzles that you worked on.

When you need help, see

Try to finish your study by

Turn in the finished work to 420

MATH
Games, Puzzles, Patterns

Teacher Information

Grades: 5-6; for one or two students.

Time: This will vary according to the number of pages assigned and their difficulty. Be sure to indicate on the contract how many days the student should work before he checks in with you to report his progress.

Assignment: Some pages may need to be duplicated in order for the student to use them. Others may be usable with plastic sleeves or tracing paper. The student may need to check with you to find out which method he is to follow.

IMC Information

Commerical material: Fun and Games with Mathematics, by Haugaard and Horlock. Looseleaf book from Contemporary Ideas, P.O. Box 1703, Los Gatos, Ca. 95030, at $8.50.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Geoboard Tasks.

This study is made up of 19 task cards to be used with a 25 nail geoboard. Do the section or sections checked below. Do both sides of one card before you go on to the next. Record your work on geoboard recording paper or laminated grids.

☐ 1. line segments

☐ 2. perimeter

☐ 3. area

☐ 4. coordinates

☐ 5. brain stretchers

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**geoboard with rubber bands...You will find one in the ICES file.
**geoboard task cards...You will find them in the Media Resource Center under the call number KS-793.7-G.
**goeboard recording paper or laminated grids...You will find them in the ICES file.

The work you turn in will be a notebook containing written responses to each card. Write the title of the card above your answers.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Geoboard Tasks

Teacher Information

Grades: 4-6; for one student.

Time: 1-2 periods for each section.

Assignment: Be sure to check which section the student is to work on. Assign one section at a time in sequence. The student should do both sides of one card before he goes on to the next.

IMC Information

Commercial material: Set of task cards from Teacher's Exchange, 600-35th Avenue, San Francisco, Ca 94121, at $1.65. 5x5 geoboards with rubber bands from Teacher's Exchange or other source, about $1.00 each. Geoboard recording paper, 90¢ per pad of 50, from Creative Publications, P.O. Box 10328, Palo Alto, Ca 94303. Laminated grids, 1 cm or 2 cm spacing, $2.95 per dozen from Creative Publications.

Processing: Each geoboard with rubber bands goes into a 9x12 checkout envelope set up for the ICES file. Geoboard recording paper is consumable and kept in the ICES file in an envelope. Laminated grids may be stored in the same way as the recording paper.

Catalog task cards into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Geometry Exercises

What you will learn . . . . .

The relationship in area between a circle and a parallelogram.

How to approximate the area of a circle.

How to arrive at a workable formula for finding the area of a circle.

You will complete 17 geometry exercises of folding, cutting and answering questions about what you have done.

Materials you will need are

**your contract...Take one from the ICES file.
**your copy of this study...Take one from the ICES file.
**2 pieces of colored construction paper (9x12)
**1 piece of contrasting color construction paper (12x18)
**scissors
**white paste
**compass
**sharpened pencils
**metric ruler

The work you turn in will be

the completed tasks and written answers to the 17 geometry exercises.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Geometry Exercises

Teacher Information

Grade 6; for 1 student.

Time: 5 periods

Assignment: Have the student refresh his memory about circumference, radius, diameter, and area of a parallelogram. Have the student read each instruction carefully before completing each step.

IMC Information

Study: Cover and 3 pages.

Commercial material: none

4/77

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Graph Games.

Read each page carefully. If there is a drawing to be made, do that before you turn the page. You will do two drawings. You will begin the first drawing on page 4 and finish it by page 17. You will begin the second drawing on page 22 and finish it by page 33.

Materials you will need are

- **your copy of this contract--Take one from the ICES file.
- **the book Graph Games--You will find it in the Media Resource Center under the call number 511-F.
- **two sheets of drawing paper, a pencil, a red crayon and a blue one

The work you turn in will be your two completed drawings. Can you think of a new picture puzzle like this that you could make for other students to work on? If so, ask your teacher whether you may have a few extra days to work on it.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Graph Games

Teacher Information

Grades 2-3; one or two students

Time: two to four periods

Assignment: The entire book is assigned at one time. The student may ask for a few additional days to make a new problem.

IMC Information

Commercial Material: The book by Frédérique and Papy is available from Thomas Y. Crowell Co., 666 Fifth Avenue, New York, NY 10003 at $3.75.

Processing: Catalog into the library.

3/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Graphiti.

To do this study you will make a picture by connecting coordinate points with line segments. You will need graph paper. Number the squares on the graph paper the way the worksheet is numbered. Do not write on the printed graphiti sheets.

There are 25 pictures in the set. They become more difficult as you go. Be sure to write down the number of each picture on the back of this contract sheet under "Work Done."

Materials you will need are:

**your copy of this contract...Take one from the ICES file.
**graph paper...You will find some in the ICES file, filed under G.
**the envelope of graphiti papers...You will find them in the Media Resource Center under the call number KS-793.7-G.
**pencil.

The work you turn in will be the completed pictures on graph paper.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Graphiti

Teacher Information

Grades: 4-6; for one student.

Time: 5 periods.

Assignment: Indicate how many of the 25 sheets the student is to work on. The sheets should be done in order. They become increasingly more difficult. For the later figures, the student needs to know that .5 means that the dot is to be placed half-way between the two coordinate numbers.

IMC Information

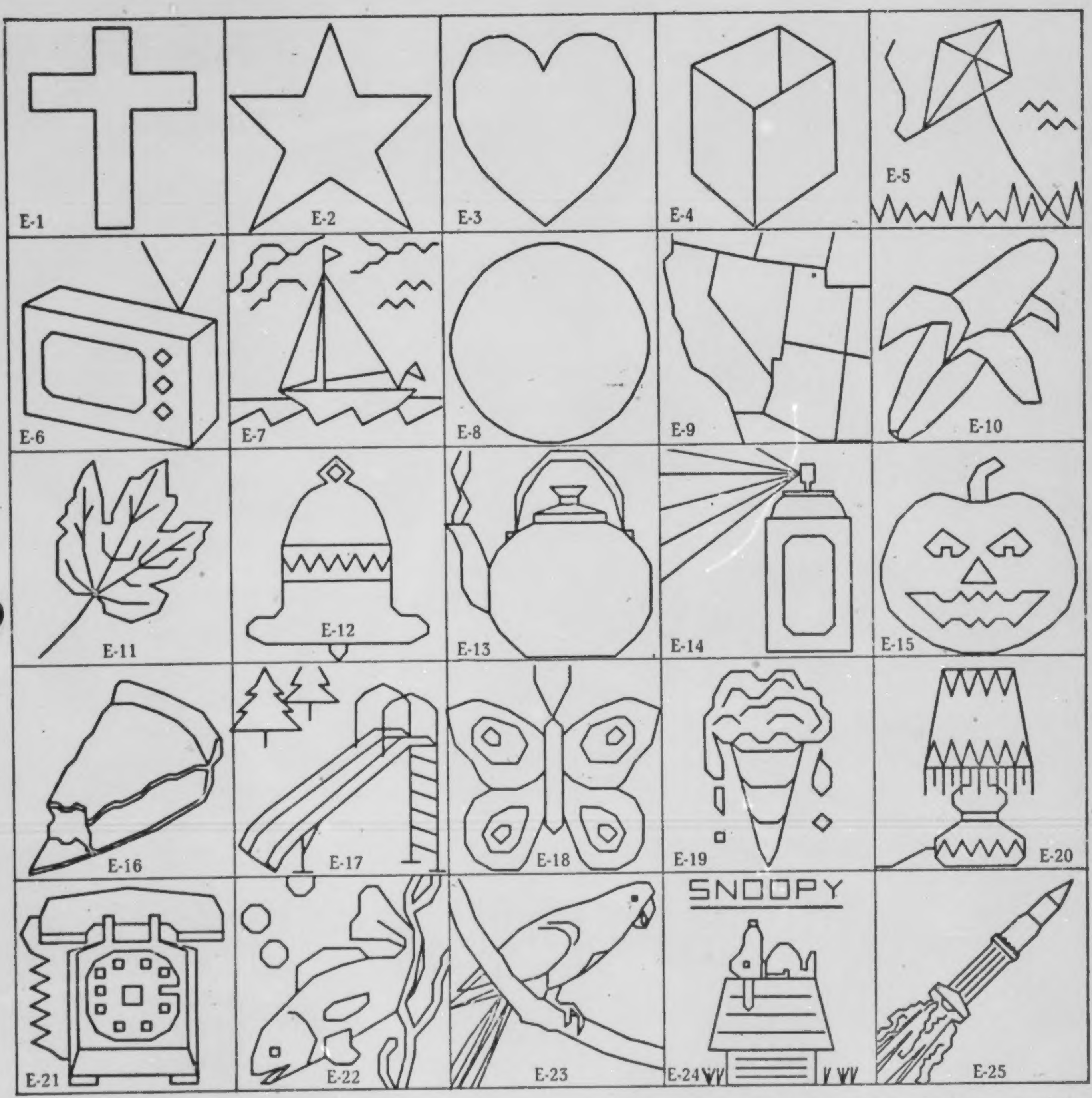
Additional teacher information: Answer key.

Commercial material: Graphiti, from MSB Educational Systems, 1061 Terra Bella, Mountain View, Ca 94040, $1.50.

Processing: Catalog into library. Put each sheet into a plastic sleeve and entire set into an envelope. Take out answer sheet, provide a separate card and pocket for answer sheet as for a teacher's guide; this should be filed separately in the library.

Rev. 4/76

GRAPHITI



E-1 E-2 E-3 E-4 E-5

E-6 E-7 E-8 E-9 E-10

E-11 E-12 E-13 E-14 E-15

E-16 E-17 E-18 E-19 E-20

E-21 E-22 E-23 E-24 E-25

Distributed by:

Completed figures (shown above) ¼ actual size

mosb EDUCATIONAL SYSTEMS 1061 TERRA BELLA · MOUNTAIN VIEW · CALIF. 94040 · PHONE 415—967-4943

100057-10m871

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Introducing the Metric System.

This study consists of 50 experiments in six sections. The experiments should be done in order. Work on the sections indicated below.

☐ Linear Measurement (17 experiments)
☐ Area Measurement (13 experiments)
☐ Volume Measurement (7 experiments)
☐ Liquid Measurement (5 experiments)
☐ Weights Measurement (4 experiments)
☐ Temperature Measurement (4 experiments

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the book, Introducing the Metric System...You will find it in the Media Resource Center under the call number 389-B.

**pencil and paper.

The work you turn in will be a write-up sheet for each experiment. You will find a sample write-up sheet with the Introducing the Metric System booklet.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Introducing the Metric System

Teacher Information

Grades: 5-6; for one to four students.

Time: A student can probably complete 3 to 6 experiments in one period.

Assignment: Be sure to check the section which the student is to work.

IMC Information

Additional teacher information: Answer key, 2 pages.

Commercial material: The booklet from Midwest Publications Co., Inc., P. O. Box 129, 1700 W. Maple Road, Troy, Mi 48084, at $2.00 ea.

Processing: Catalog book into library.

Rev. 4/76

INTRODUCING THE METRIC SYSTEM

WITH ACTIVITIES

by Dr. Donald A. Buckeye

SELECTED ANSWERS

Experiments

1 – 1) 100 2) 10 3) 100 4) 10

3 – 4) a white cuisenaire rod is one centimeter long

4 – 1) 10 2) 50 3) 100 4) 1000

5 – 3) No; we would not need to measure height to the nearest millimeter since it is too small of a measurement.

6 – 1) 10 2) 50 3) 100 4) orange

7 – 5) No; too large of a measurement.

8 – 1) 10 2) 50 3) 100

9 – 1) 100 cm 2) 1000 mm. 3) Yes; if it had cm and mm on it, if not then it would be too large of a measurement.

12 – 1) 10,000 dm 2) 100,000 cm 3) 1,000,000 mm

13 – 1) 10 mm 2) 10 cm 3) 100 mm 4) 2 cm 5) 300 mm

14 – 1) ½ m 2) 1 m 3) 10 m 4) 100 m 5) 10 Km 6) 100 Km

15 – 1) $\frac{1}{1000}$ m 2) $\frac{1}{100}$ m 3) $\frac{1}{10}$m 4) 1000m 5) 10 m 6) 100 m

18 – 1) 18 square centimeters (18 cm^2)

19 – 1) 15

20 – 2) 81 cm^2 3) 40½ cm^2 4) area of triangle is equal to ½ area of square.

22 – 2) 10,000

24 – 1) 100 cm^2 2) 10,000 cm^2 3) 100 dm^2

26 – 5) Area of triangle is about 43.3 m^2; area of square is 25 m^2

27 – 4) Surface area of sphere is 4 times the area of circle. ($4\pi r^2$)

29 – 1) 100 mm^2 2) 100 cm^2 3) 10,000 mm^2

30 – 1) 100 dm^2 2) 10,000 mm^2 3) 1,000,000 mm^2 4) 100 m^2
5) 10,000 square decimeters (dm^2) = 1 square decimeter (dKm^2)
6) 100,000,000 square centimeters (cm^2) 7) 10,000,000,000 square millimeters (mm^2)

32 – 3) 100 4) 10 cm 5) 10 mm 6) 100 mm × 100 mm × 100 mm = 1,000,000 mm^3 = 1 dm^3; 10 cm × 10 cm × 10 cm = 1,000 cm^3 = 1 dm^3

33 – 1) 1,000 2) 1,000 3) 1,000,000

35 – 1) 1,000 mm^3 2) 10 cm 3) 100 cm^2 4) 1,000 cm^3 5) 1,000,000 mm^3

36 – 1) 100 dm^2 2) 1,000 dm^3 3) 1,000,000,000 mm^3 4) 1,000,000 cm^3 5) 1,000 dm^3 6) 1,000,000 dm^3 7) 1,000,000,000 cm^3

37 – 1) 10^3 = 1,000 mm^3 2) 10^3 = 1,000 cm^3 3) 10^3 = 1,000 dm^3 4) 10^9 = 1,000,000,000 m^3 5) 10^6 = 1,000,000 dKm^3

38 – 1) 1,000 cm^3 2) 10,000 cm^3

39 – 4) 1 liter is equal to 1 cubic decimeter

40 – 1) 100 centiliter 2) 100 milliliter 3) 1,000 ml

41 – 1) 10 ml 2) 10 cl 3) 10 dl 4) 100 ml 5) 100 cl

43 – 2) 10 mg = 1 cg; 10 cg = 1 dg; 10 dg = 1 g

44 – 1) 10 mg 2) 10 cg 3) 10 dg

46 – 1) 100 mg 2) 1,000 mg 3) 10 cg 4) 100 cg 5) 10 dg

English–Metric Equivalents

1 inch = 2.54 centimeters
1 foot = .3048 meters
1 yard = .9144 meters
1 mile = 1.6093 kilometers
1 dry quart = 1.101 liters
1 liquid quart = .9463 liters

1 centimeter = .3937 inches
1 decimeter = .328 feet
1 meter = 1.0936 yards
1 kilometer = .6214 miles
1 liter = .908 dry quarts
1 liter = 1.0567 liquid quarts

Independent Curriculum Enrichment Studies

math

This study is for

Date to begin is

Your study will be It's About Time

Forty-three task cards about TIME. Your teacher or MGM resource aide will select enough cards for you to do in one period. Where possible write your answers on a separate sheet of paper. On others place a piece of ditto paper over the card and do your work on the paper. Have your answers checked before going on to other cards.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a set of "It's About Time" cards...Check these out of the Media Resource Center. You will find them under the call no. KS-529-I.
- **pencil and ditto paper.

The work you turn in will be

☒ your answers to cards ______________ (list no. of cards selected)

____

____

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
It's About Time

Teacher Information

Grades 1-3; for one student.

Time: one period.

Assignment: All cards are not appropriate for all grade levels. Select enough cards for the student ot finish in one period. Where a student must do his work on a sheet of paper through which he can see the card, you will have to check his answers before he goes on to another card.

IMC Information

Consumable: Score card.

Commercial material: Wise Owl Publications. It's About Time task cards are available from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518, at $4.95 per set.

Processing: Remove title card, mini-award card and Wise Owl advertising card. Duplicate score card 2 to a sheet and cut in half. Catalog set into library.

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Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Labyrinthian Lines. This is pages 32 to 37 in the book Centuous Math. You will need a piece of plastic (clear) and a washable felt pen or grease pencil to do this study. Lay the plastic over the page in the book, or trace the picture onto another piece of paper and then lay the plastic over your copy. By using the washable marker on plastic, you will be able to erase and start again without drawing the picture over each time. Choose any picture you want and see about how long it takes you to finish that one. Then figure how long it would take you to finish all the pictures. If you want to do them all, make a contract date with your teacher so you will have enough time. Write down which pages you do under "Work Done."

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the book Centuous Math...You will find it in the Media Resource Center under the call number 793.7-G. (The book was written by Marilyn J. Gellis.)
**paper and pencil, if you want to trace the drawing
**plastic sheet and washable marker

The work you turn in will be a demonstration.

You must take the drawing, wipe off your washable tracing, and do it again for your teacher (or anyone else your teacher asks to watch you). This means you must be able to remember how you did it. You may want to practice more than once before you take your work to the teacher!

Would you like to create a new Labyrinthian Line drawing? If so, set a new time to finish with your teacher. Ask other students to try to solve your drawing.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Labyrinthian Lines

Teacher Information

Grades 3-4; one student

Time: see instructions to student

Assignment: see instructions to student

IMC Information

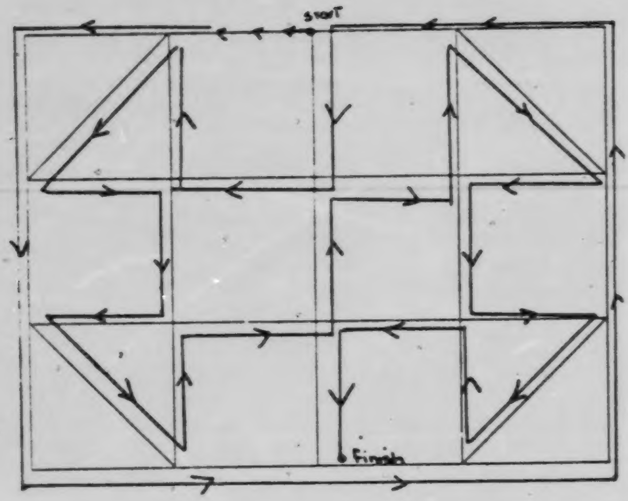
Additional Teacher Information: Answers (one side)

Commercial Material: see Centuous Math

Processing: see Centuous Math

3/75

MATH
Labyrinthian Lines
Answers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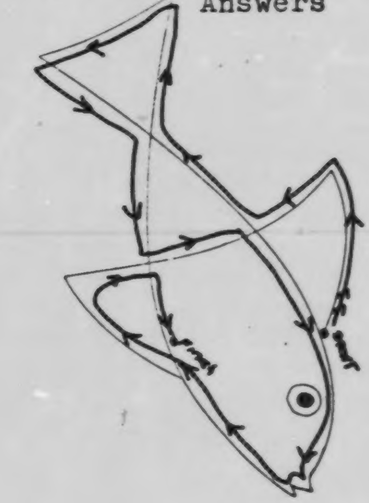
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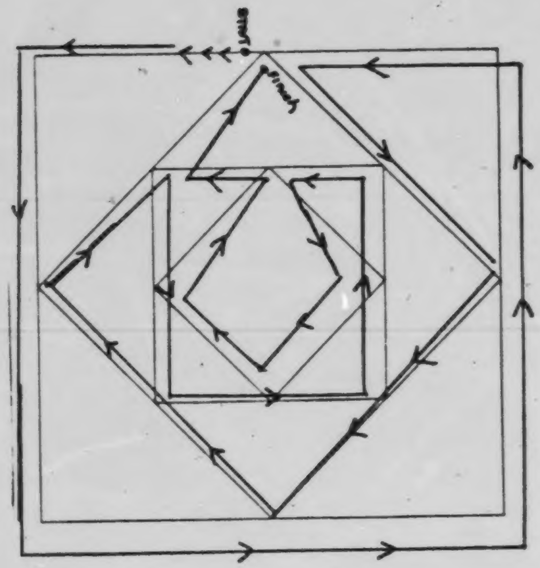
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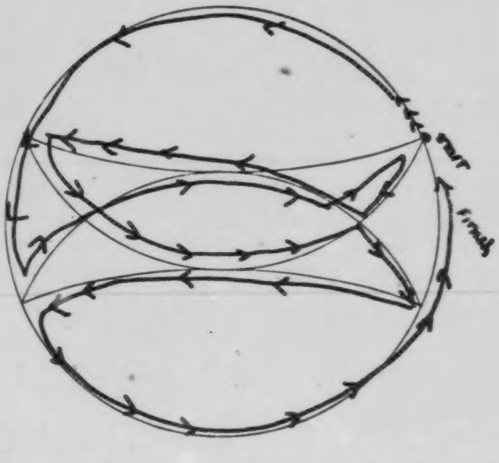
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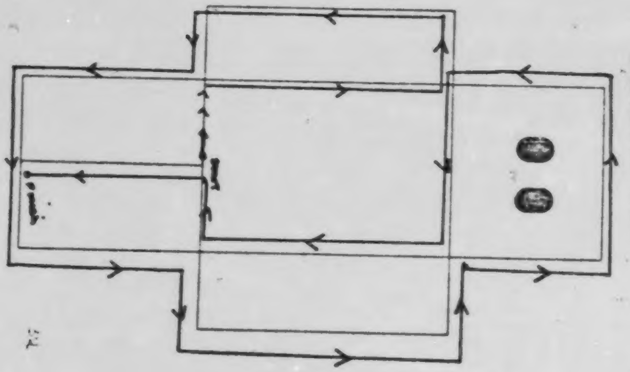
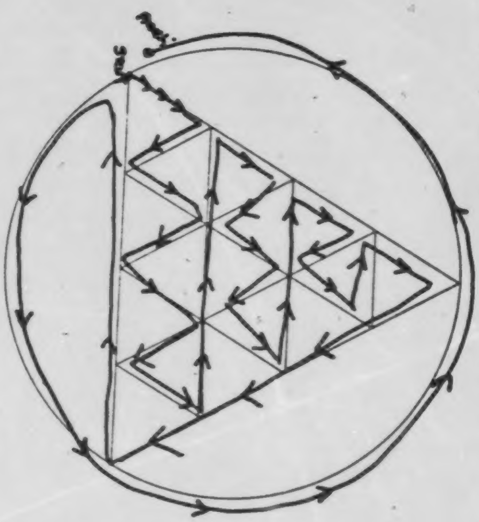

start
finish

Answers to Labyrinthian Lines


start
finish

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Let's Calculate - An Instructional guide For Your Calculator by Daniel T. Dolan

You will be given self directed instruction for all functions of the calculator. You will work additional problems, with instruction, for each function of the calculator so that you may gain competence with all the machines operations. You will be given the opportunity to see patterns produced in problems which will lead you to further investigation of the calculator. You will write all your answers on a separate sheet of paper rather than on the pages of Let's Calculate.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the pages for Let's Calculate...Obtain these from the ICES file.

**a calculator.

**pencil and paper.

The work you turn in will be

☐ Your answers to the tasks given you in Let's Calculate.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Let's Calculate

Teacher Information

Grades 4-6; for one student (five calculators have been provided at each school).

Time: 10 to 15 periods.

Assignment: The material in the book is divided into two sections, Instructional and Supplemental. The Instructional pages have been developed with three objectives in mind:

1. To provide simple self directed instruction for all functions of the calculator.
2. To provide additional problems, with the instruction, for each function of the calculator so that students may gain competence with all machine operations.
3. To provide an opportunity for students to see patterns produced in problems and lead them to further investigations.

The Supplemental section provides students with additional problems involving patterns and problem solving. Answer sheets are provided in the teacher's binder rather than providing them to the students for self correction sice students have tended to rush through the book without really taking time to work out problems themselves when this has been tried. The teacher should assign pages or sections of the book to students based on his knowledge of what mathematical processes to which they have or have not already been introduced.

IMC Information

Additional teacher information: Answers, 4 pages.

Commercial material: Let's Calculate, An Instructional Guide For Your Calculator is available from Lakeshore Curriculum Materials Co., P.O. Box 2116, San Leandro, Ca., 94577 at $4.95 per copy. Basic School Calculators (Texas Instruments) $11.95 each, calculator plug in adapters, $4.95 each, calculator multi plug strips which will accomodate up to 5 calculator adapters, $3.00 each.

Processing: Remove answer sheets. Duplicate to follow teacher's page in ICES binder. Remove student pages from book, duplicate 5 copies for each school placing pages in plastic sheets.

9/77

ANSWER KEY

PAGE 1:
1. hELLO
2. hOLES
3. OhI'O
4. hE IS BIG
5. I.SIZZLE
6. BOO.BEES
7. a. 35009
   b. 53045514
   c. 379919
   d. .375808

PAGE 2:
7. 374
8. 2580
9. 9020
10. 31.15
11. 7.3
12. .16
13. 41.211
14. 56104
15. 862501
16. .013
17. .0047

PAGE 3:
1. 131
2. 868
3. 232
4. 200.02
5. 80808
6. 200.1976

PAGE 4: Answer to riddle – GOBBLE

PAGE 6:
1. 555
2. 343
3. 2626
4. $1.11
5. 20.807
6. $195.91

PAGE 7:

$$\begin{array}{r} 3\;7 \\ 4\;\boxed{2} \\ +\;\boxed{6}\;8 \\ \hline \boxed{1}\;4\;7 \end{array} \qquad \begin{array}{r} 4\;8\;\boxed{5} \\ 9\;\boxed{6}\;2 \\ +\;\boxed{5}\;5\;0 \\ \hline \boxed{1}\;9\;9\;7 \end{array} \qquad \begin{array}{r} \boxed{4}\;0\;2\;7 \\ 6\;1\;3\;5 \\ +\;9\;\boxed{7\;8\;1} \\ \hline 1\;9\;9\;4\;3 \end{array}$$

$$\begin{array}{r} 6\;8\;\boxed{5} \\ -\;3\;\boxed{5}\;9 \\ \hline \boxed{3}\;2\;6 \end{array} \qquad \begin{array}{r} 3\;4\;\boxed{0}\;6 \\ -\;1\;\boxed{8}\;\boxed{7}\;\boxed{9} \\ \hline \boxed{1}\;5\;2\;7 \end{array} \qquad \begin{array}{r} 7\;0\;0\;2 \\ -\;5\;\boxed{2\;0\;6} \\ \hline \boxed{1}\;7\;9\;6 \end{array}$$

Hidden Message:
Answers to problems (reading down 1st column, then down 2nd column):

1st column: 278, 236, 107, 90, 58, 63, 79 127, 152

2nd column: 82, 4, 308, 164, 48, 105, 2, 103, 111

Hidden Message: Calculators make math more fun

PAGE 8:

Answer	Keys to Press
1. 20	11 + 9 =
2. 141	132 =
3. 596	587 =
4. 1010	1001 =
5. 7575	7566 =

PAGE 8 Continued:

Keys to Press	New Score
78 + 15 =	93
+ 67 =	82
+ 84 =	99
+ 73 =	88
+ 59 =	74

PAGE 9:

Answer	Keys to Press
1. 161	172 – 11 =
2. 545	556 =
3. 1234	1245 =
4. 4647	4658 =

Problem	Keys to Press	New Price
1. $2.49 – $.27 =	2.49 – .27 =	$2.22
2. $1.38 – $.27 =	1.38 =	$1.11
3. $ .96 – $.27 =	.96 =	$ .69
4. $2.18 – $.27 =	2.18 =	$1.91

PAGE 10:

Display will read 2, 3, 4, 5, 6, 7

Display will read 10, 15, 20, 25, 30, 35

Display will read 9, 8, 7, 6, 5, 4, 3

Display will read 95, 90, 85, 80, 75, 70

PAGE 11:
1. 1334
2. 1776
3. 20020
4. $10020.01
5. 353.353
6. 2.444442
7. 484484

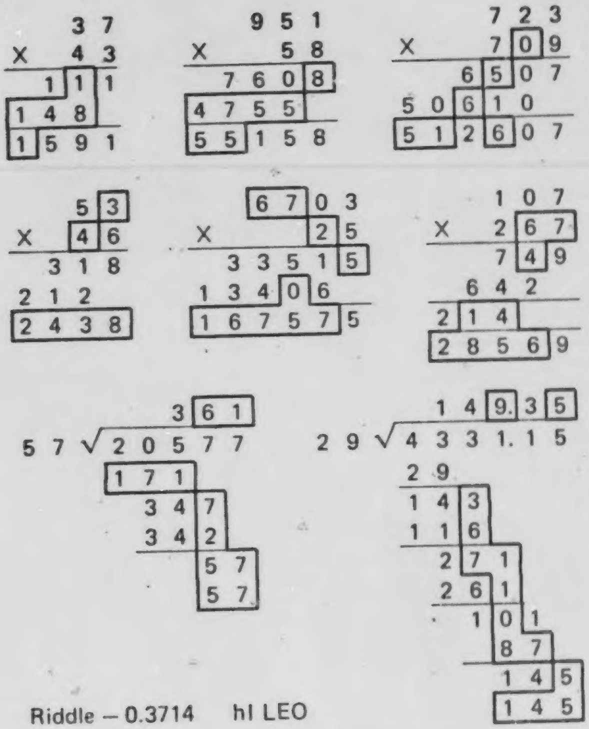
PAGE 12:
1. 338 ÷ 26 = 13
2. 13104 ÷ 156 = 84
3. 1453701 ÷ 573 = 2537
4. 62.31 ÷ 186 = .335
5. 4.5 ÷ .5 = 9
6. 1.31109 ÷ .957 = 1.37

1. $\frac{5}{8} = 5 \div 8 = .625$
2. $\frac{4}{9} = 4 \div 9 = .\overline{4}$
3. $\frac{8}{11} = 8 \div 11 = .\overline{72}$

Teacher Note: Repeating numbers or series of numbers are indicated here by placing a bar over the repeating portion. Explanation of these answers is a good starting point for discussions about infinitely repeating decimals which, of course, continue to repeat far beyond the capability of any calculator to show them.

ANSWER KEY

PAGE 13:


37
X 43
111
148
1591
951
X 58
7608
4755
55158
723
X 709
6507
50610
512607
53
X 46
318
212
2438
6703
X 25
33515
13406
167575
107
X 267
749
642
214
28569
361
57 √20577
171
347
342
57
57
149.35
29 √4331.15
29
143
116
271
261
101
87
145
145

Riddle – 0.3714   hI LEO

PAGE 14:

7^2	7 X 7	49
8^5	8 X 8 X 8 X 8 X 8	32768
2^7	2 X 2 X 2 X 2 X 2 X 2 X 2	128
13^3	13 X 13 X 13	2197
19^6	19 X 19 X 19 X 19 X 19 X 19	47045881
5^3	5 X 5 X 5	125
9^5	9 X 9 X 9 X 9 X 9	59049
4^4	4 X 4 X 4 X 4	256
27^4	27 X 27 X 27 X 27	531441

PAGE 15:

Display will read 4, 8, 16, 32, 64, 128, 256

Display will read 100, 1000, 10000, 100000, 1000000, 10000000

Display will read .01, .001, .0001, .00001, .000001

Display will read .25, .125, .0625, .03125, .015625

Number eventually displayed is 0. The answer will surpass the capacity of the machine.

PAGE 16:

Problem	Answer	Keys to Press
1. 11 X 11	121	11 X =
2. 11 X 111	1221	111 =
3. 11 X 1111	12221	1111 =
4. 11 X 11111	122221	11111 =
1. 303 X 15 =	4545	15 X 303 =
2. 303 X 33 =	9999	33 =
3. 303 X 37 =	11211	37 =
4. 303 X 56 =	16968	56 =
5. 303 X 111 =	33633	111 =

PAGE 17:

Problem	Answer	Keys to Press
10 ÷ 5 =	2	10 ÷ 5 =
25 ÷ 5 =	5	25 =
80 ÷ 5 =	16	80 =
100 ÷ 5 =	20	100 =
1 ÷ 9 =	$0.\overline{1}$	1 ÷ 9 =
2 ÷ 9 =	$0.\overline{2}$	2 =
3 ÷ 9 =	$0.\overline{3}$	3 =
4 ÷ 9 =	$0.\overline{4}$	4 =

Pattern – the repeating digit is the same as the dividend. Answer for $7 \div 9 = .\overline{7}$ $8 \div 9 = .\overline{8}$ $9 \div 9 = .\overline{9}$ Check on the calculator should verify the first two, however 9 ÷ 9 = 1. This could lead to discussion of $.\overline{9} = 1$, $2.\overline{9} = 3$ and so on.

Teacher Note: Repeating numbers or series of numbers are indicated here by placing a bar over the repeating portion.

PAGE 20:

1. 2   2. 6   Answers are not the same because the order of operations is different.

5 + 5 + 5 ÷ 5 = 3
5 + 5 ÷ 5 + 5 = 7
5 ÷ 5 + 5 + 5 = 11

Answers are correct if keys are pressed in this order. *Rules* for normal order of operations disregarded.

Answers for following problems may vary, possible solutions are:

3 ÷ 3 = 1
3 + 3 ÷ 3 = 2
3X 3 ÷ 3 = 3
3 ÷ 3 + 3 = 4
3 + 3 ÷ 3 + 3 = 5
3X 3 – 3 = 6
3 ÷ 3 + 3 + 3 = 7
3 ÷ 3 = + = = + 3 + 3 = 8
3X 3 = 9

20 with 5 9's: 9 + 9 ÷ 9 + 9 + 9 = 20
20 with 4 9's: 9 ÷ 9 + = = + 9 + 9 = 20

Note: These answers work for the Lakeshore Basic School Calculator (Item XT777). If you have a different calculator, solutions may be different.

ANSWER KEY

PAGE 21:

SET 1 – Keys to Press

1. 3 × 4 + 2 = 14
2. 3 × 4 + 2 = 14
3. 2 + 3 × 4 = 20
4. 2 + 3 × 4 = 20
5. 3 + 4 + 5 ÷ 3 = 4
6. 5 ÷ 3 + 3 + 4 = $8.\overline{6}$
7. 12 – 4 + 5 = 13
8. 5 + 12 – 7 = 10

SET 2

	Problem	Keys to Press
1.	(5 + 12) – 7 = 10	5 + 12 – 7 = 10
2.	(1 + 2) × 3 – 4 = 5	1 + 2 × 3 – 4 = 5
3.	(1 + 2) × (3 + 4) = 21	a. (1 + 2) = 3 b. 3 + 4 = 7 c. 7 × 3 = 21
4.	7 + (2 × 3) = 13	2 × 3 + 7 = 13
5.	12 – (7 – 5) = 10	a. 7 – 5 = 2 b. 12 – 2 = 10

SET 3

	Problem	Keys to Press
1.	(9 × 4) ÷ 2 = 18	9 × 4 ÷ 2 = 18
2.	(9 ÷ 4) × 2 = 4.5	9 ÷ 4 × 2 = 4.5
3.	9 – (4 ÷ 2) = 7	a. 4 ÷ 2 = 2 b. 9 – 2 = 7
4.	14 + (51 ÷ 3) = 31	51 ÷ 3 + 14 = 31

Problems 3 and 5 in Set 2, and 3 in Set 3 are multiple step problems. Students must realize that results of certain steps in a chained operation must be written down for further use.

PAGE 22:

Problem	Answer
30 – 20% =	$24
3.60 + 5% =	$3.78

PAGE 23:

1. 80%
2. 62.5%
3. $.6\overline{6}\%$
4. 33
5. 250%
6. .4455
7. .084
8. 595
9. 20%
10. .4%
11. $22.\overline{22}\%$
12. 225%
13. 4
14. 13%
15. 350%
16. $13.25
17. $32.30
18. $325
19. 168
20. $19.35
21. $7938

If correctly completed, the puzzle shows a shark.

PAGE 24:

1. $\sqrt{42} = 6.4807$
2. $\sqrt{94} = 9.6954$
3. $\sqrt{286} = 16.9115$
4. $\sqrt{1063} = 32.6036$
5. $\sqrt{8.65} = 2.94109$
6. $\sqrt{.5394} = .734439$

Note: Answers given here are accurate to more places than required by problem.

PAGE 25:

1. $\sqrt[3]{437} = 7.58858$
2. $\sqrt[3]{3458} = 15.121968$
3. $\sqrt[3]{20791} = 27.49741$

PAGE 26: SET 1

2 × 99999 = 199998
3 × 99999 = 299997
4 × 99999 = 399996
5 × 99999 = 499995
6 × 99999 = 599994
7 × 99999 = 699993
8 × 99999 = 799992

2222222 × 9 = 19999998
3333333 × 9 = 29999997
4444444 × 9 = 39999996
5555555 × 9 = 49999995
6666666 × 9 = 59999994
7777777 × 9 = 69999993
8888888 × 9 = 79999992

SET 2

1 × 9 + 2 = 11
(etc.) = 111
= 1111
= 11111
= 111111
= 1111111

12345679 × 9 = 11111111
12345679 × 18 = 22222222
12345679 × 54 = 66666666
12345679 × 81 = 99999999
12345679 × 108 = 13333333
12345679 × 261 = 32222222

SET 3

95238 × 7 = 666666
126984 × 7 = 888888
63492 × 7 = 444444
31746 × 7 = 222222
142857 × 7 = 999999
15873 × 7 = 111111
79365 × 7 = 555555

11 × 11 = 121
(etc.) = 12321
= 1234321
= 123454321
= 12345654321
= 1234567654321
= 123456787654321

Some of these answers are beyond the capability of the calculator. This is intentional as we want to encourage discovery of the patterns. Calculators will indicate overflow when some of these problems are entered and students must complete answers through deduction rather than operations.

Most of these patterns are obvious. Here are some which did not seem obvious to us:

SET 2	12345679 × 9 etc. The pattern here is not in the answer, but rather in the problems. Second factors are all multiples of 9.
SET 3	95238 × 7 etc. (Mr. Dolan indicates this is not so much a pattern as an interesting series of numbers.)

PAGE 27:

2 × 91 = 182
3 × 91 = 273
4 × 91 = 364
5 × 91 = 455
6 × 91 = 546
7 × 91 = 637
8 × 91 = 728
9 × 91 = 819

9 × 9 + 7 = 88
(etc.) = 888
= 8888
= 88888
= 888888
= 8888888
= 88888888
= 888888888

ANSWER KEY

PAGE 27: Continued

1 × 8 + 1 = 9
(etc.) = 98
= 987
= 9876
= 98765
= 987654
= 9876543
= 98765432
= 987654321

(111 − 3) ÷ 9 − 2 ÷ 10 = 1
(etc.) = 12
= 123
= 1234
= 12345
= 123456
= 1234567

Only pattern here not immediately apparent is 2 × 91 etc. Here, the digit on the end of the answer is always same as the first factor. 1st digits of answers ascend from 1 to 8. 2nd digits of answers descend from 8 to 1.

Note: Some of these answers exceed capacity of calculator intentionally to force students to find answers from observation of patterns.

PAGE 28:

44 × 3367 = 148148
77 × 3367 = 259259
341 × 3367 = 1148147
264 × 3367 = 888888
682 × 3367 = 2296294
297 × 3367 = 999999
583 × 3367 = 1962961

3 × 37037 = 111111
6 × 37037 = 222222
12 × 37037 = 444444
24 × 37037 = 888888
69 × 37037 = 255553
321 × 37037 = 11888877
522 × 37037 = 19333314

6 × 37 = 222
(etc.) = 2222
= 22222
= 222222
= 2222222
= 22222222
= 222222222
= 2222222222

2 × 9109 = 18218
3 × 9109 = 27327
4 × 9109 = 36436
5 × 9109 = 45545
6 × 9109 = 54654
7 × 9109 = 63763
8 × 9109 = 72872
9 × 9109 = 81981

Notes on patterns:

44 × 3367 etc. This produces repeating answers like 148148. When 1st factor becomes 3 digits, answers have additional digit on front and contain 3 digit numbers which become smaller (in other words, 538 × 3367 = 1 962 961)

3 × 37037 etc. This one is obvious with repeating digits. The answers which are not repeating digits have the characteristic that the 1st and last digits or pairs of digits in each can be added together to become the repeating digits in the center. In other words 321 × 37037 = 11888877 (11 + 77 = 88).

2 × 9109 etc. All answers are multiples of 9.

Historical calculations answers: 14921776, Shiloh

PAGE 29:

$5 \div 99 = .\overline{05}$
$11 \div 99 = .\overline{11}$
$25 \div 99 = .\overline{25}$
$37 \div 99 = .\overline{37}$
$53 \div 99 = .\overline{53}$
$87 \div 99 = .\overline{87}$
$71 \div 99 = .\overline{71}$
$41 \div 99 = .\overline{41}$

$7 \div 999 = .\overline{007}$
$9 \div 999 = .\overline{009}$
$47 \div 999 = .\overline{047}$
$127 \div 999 = .\overline{127}$
$386 \div 999 = .\overline{386}$
$582 \div 999 = .\overline{582}$
$842 \div 999 = .\overline{842}$
$901 \div 999 = .\overline{901}$

$78 \div 9999 = .\overline{0078}$
$16 \div 9999 = .\overline{0016}$
$659 \div 9999 = .\overline{0659}$
$767 \div 9999 = .\overline{0767}$
$1781 \div 9999 = .\overline{1781}$
$4531 \div 9999 = .\overline{4531}$
$7925 \div 9999 = .\overline{7925}$
$9380 \div 9999 = .\overline{9380}$

Answers to questions:
The digits which repeat are the same as the numerator and the number of digits in each repeater is the same as the number of 9's in denominator.

99 × 99 = 9801
(etc.) = 998001
= 99980001
= 9999800001
= 99999980000001

66 × 66 = 4356
(etc.) = 443556
= 44435556
= 4444355556
= 44444435555556

PAGE 30:

79 × 99 = 7821
(etc.) = 778221
= 77782221
⋮
(etc.) = 777778222221

35 × 53 = 1855
(etc.) = 18655
= 186655
⋮
(etc.) = 186666655

23 × 33 = 759
(etc.) = 77589
= 7775889
⋮
(etc.) = 77777588889

99 × 98 = 9702
(etc.) = 997002
= 99970002
⋮
(etc.) = 999997000002

66 × 47 = 3102
(etc.) = 31302
= 313302
⋮
(etc.) = 31333302

44 × 46 = 2024
(etc.) = 19624
= 195624
⋮
(etc.) = 19555624

ANSWER KEY

PAGE 31:

Ray	$481.35	Stan	$1616.10
Glenda	$142.75	Doug	$ 259.62
Larry	$212.46	Dan	$ 838.69
Sam	$555.75	Jim	$ 377.51
Keith	$171.45	Rick	$ 485.87
Lance	$980.50	Wally	$ 58.02

Total	207	589kg	1288cm
Average	29.57	84.14kg	184cm

PAGE 32:

Monday	$19.50	Thursday	$39.75
Tuesday	$21.00	Friday	$44.00
Wednesday	$32.85	Total	$157.10

$20.00	$26.00	Total Cost – $171.68
$25.20	$ 8.94	
$27.20	$ 8.34	
$21.20	$ 8.70	
$18.00	$ 8.10	

PAGE 33:
With exception of 1.(a) where reciprocal is 1 and there are no repeating digits and 2 (a) where reciprocal is .5 and there are no repeating digits, all these problems produce repeating digit answers. Repeaters are indicated with a bar over the repeating portion. Correct answers in "Reciprocal" column are same as answers for "Repeating Digits" column. Here they are:

1. a: See above
   b. $.\overline{90}$
   c. $.\overline{900}$
   d. $.\overline{9000}$
2. a. See above
   b. $.\overline{45}$
   c. $.\overline{450}$
   d. $.\overline{4500}$
3. a. $.\overline{3}$
   b. $.\overline{300}$
   c. $.\overline{3000}$
4. a. $.\overline{142857}$
   b. $.\overline{129870}$
   c. $.\overline{128700}$
5. a. $.\overline{1}$
   b. $.\overline{10}$
   c. $.\overline{100}$

PAGE 34:

After 4 minutes $\frac{1}{2}$ or 0.5

After 8 minutes $\frac{1}{4}$ or 0.25

After 12 minutes $\frac{1}{8}$ or 0.125

After 16 minutes $\frac{1}{16}$ or 0.0625

After 20 minutes $\frac{1}{32}$ or .03125

After 40 minutes $\frac{1}{1024}$ or .0009765

PAGE 34 Continued:

After 60 minutes $\frac{1}{32768}$ or .0000305

Though this series will never reach zero, the calculator will as the numbers become too small for its display capability. This can lead to a discussion of calculator limitations as well as endless number series like this one.

PAGE 35:

1. 50
2. 5000
3. 5130
4. 171
5. 111
6. 1111
7. 53328
8. 17776
9. 12221
10. 12.221
11. 1812.221
12. 362.4442
13. 1362.4442
14. 5449.7768
15. 5507.918

Answer – BIG LOSS

PAGE 36 and 37: Best Buy

40 oz. Jelly
250 bottle Aspirin
8 pack Cola
5 lbs. Honey
2 lbs. Ketchup
64 oz. Detergent
8.5 oz. Toothpaste
Unsweetened Cool Aid
3 lbs. Coffee
Tires at $45 each
5 gal. Gulp
18 oz. Mouthwash

PAGE 38: 9 lbs. 10 oz. Boneless Ham

PAGE 39:

1. 5 ÷ 5 + 5 + 5 = =
   55 ÷ 5 + 5 = 16
2. 333 ÷ 3 ÷ 3 = 37
3. 9 ÷ 9 + 99 = 100
4. 9 + 9 + 9 ÷ 9 + 9 + 9 + 9 + 9 + 9 + 9 = 57
5. 6 ÷ 6 + 6 + 6 + 6 + 6 + = 25
6. 666 + = = – 6 – 6 – 6 – 6 – 6 ÷ 6 = 217
7. 6 X 6 + 6 + 6 + 6 + 6 + 6 + = = 132
8. 1 + 1 + 1 + 1 + = X = = – 1 = 63

PAGE 40:

1. If the number in the upper left corner of the nine numbers chosen is (n), the sum of all numbers in the square is (n + 8) X 9.
2. Sum of four corner numbers = 4 X (center number) = sum of center numbers in outside rows and columns.
3. Sums are equal. Each of these sums is one third the sum of all nine numbers.

Each of the problems will work in any square of nine numbers. Proof would be a good exercise for upper

(Continued)

ANSWER KEY

PAGE 40 Continued:

grade or algebra students. In any square the numbers can be written as:

n	n + 1	n + 2
n + 7	n + 8	n + 9
n + 14	n + 15	n + 16

This group of expressions can be used to prove all the discoveries in the exercise. Just use them in place of actual calendar numbers.

PAGE 41:

1. If the number in the upper left corner of the sixteen chosen is (n), the sum = (n + 12) X 16.
2. All sums are equal and one fourth the sum of all sixteen numbers.

Proof that these will always work is similar to that for nine numbers. See answers for page 40.

PAGE 42:

Remind students that if number A can't be divided by number B because B is larger than A, that the remainder in the problem is Number A. Notice that this can indicate an impossible day in March for Easter. When this occurs, simply carry forward into April to find the correct date.

PAGE 44:

Number of gifts = 364

Pattern,

1 + (1 + 2) + (1 + 2 + 3) + · · · (1 + 2 + 3 · · · 11 + 12)

All gifts would be returned by Christmas Eve of the following year, leap year being excluded.

PAGE 45:	Total	w/Tax
1. John	$4.15	$4.27
2. Tim	$3.30	$3.40
3. Eileen	$3.55	$3.66
4. Peter	$3.15	$3.24
5. Coleen	$3.45	$3.55
6. Kevin	$3.50	$3.61
7. Joan	$3.05	$3.14

Sara – Steak, potato, beans, cheese cake, Root Beer
Chris – Roast beef, potato, corn, pie, cola
Laura – Ham, potato, corn, ice cream, milkshake
Mike – Chicken, potato, peas, coffee

PAGE 46:

1. $5.4 billion
2. 1.8 billion kg
3. 30 million litres mustard
   225 million litres ketchup
4. Over 2 billion sq. metres
5. 750,000 homes
6. 900,000 km Yes – reach the moon
7. 1.8 million km
8. Over 41 years
9. Answer varies with age of student (age + 41 years approximately)
10. Over 171,000 years
11. 900 million kg
12. Over 790,000 cattle

Many of these problems are too large for capacity of the calculator. Calculators must be used in conjunction with pencil/paper. Students will reckon, in various ways, with dropping, then adding on the extra zeroes.

PAGE 47: Total – $47.30

PAGE 48:

There are several possible answers.

Example – 1. Hamburger, hot dog, cola, gum
2. Hot dog, fudge bar, hot chocolate, ice cream, cola, gum

PAGE 49:

Answers for an eight year period are given, however, these must be correlated to the correct age of the student.

Interest	Taxes Paid	Interest -- Taxes Amt. of Increase	New Total
74,500.00	21,046.25	53,453.75	1,053,453.75
78,482.30	22,171.25	56,311.05	1,109,764.80
82,677.47	23,356.38	59,321.09	1,169,085.89
87,096.89	24,604.87	62,492.02	1,231,577.91
91,752.55	25,920.09	65,832.45	1,297,410.37
96,657.07	27,305.62	69,351.44	1,366,761.82
101,823.75	28,765.21	73,058.54	1,439,820.37
107,266.61	30,302.81	76,963.79	1,516,784.17

This problem will require a reasonable amount of transferring and keeping track of answers. Calculators just can't do everything.

Record Money
1. 62.5 weeks
2. 2500 metres high
3. 21 weeks (approx.)
4. $41,600
5. 24 years (approx.)

Some of these answers are approximate. Students need not carry them all out to their extremes.

ANSWER KEY

PAGE 50:

Total amount paid for the home over a 30 year period is $128,649.60. The interest paid is $86,149.60 or twice the original cost of the home. Total cost is over three times the original home price.

PAGE 52:

Number	Palindrome	Number of Steps
94	484	2
728	45254	4
6.9	33.33	3
472	9559	4
5.76	567.765	5
193	233332	8
835	9119	3
16.8	39.93	2
988	881188	6
97	44044	6
364	45254	5
567.8	1184.4811	3
918	89298	4
829	88555588	10

PAGE 53:

Pattern for subtraction – The number 6174 will continually result as the answer after a series of subtractions.

Multiplication in Reverse – Part I

2. Having reversed the digits in the factors, the product will be equivalent.
3. Other problems such as the examples can be written that will result in equivalent products, after reversing, if the product of the tens digits is equal to the product of the units digits.

Multiplication in Reverse – Part II

A rule for a problem involving a three digit and a two digit factor is as follows:

1. The three digit number is a multiple of eleven.
2. The product of the hundreds digit in the 3 digit factor and the tens digit in the 2 digit factor must equal the product of the units digits from both factors.

Example: 374 $\quad$ 3 X 8 = 6 X 4
X 86

Part II of multiplication in reverse is terribly difficult. Don't be surprised if many of your students don't solve it.

PAGE 54:

1. All the numbers in the large set are divisible by 13.
2. For divisibility by other factors.
   - 2 – All digits must be even.
   - 3 – Sum of the digits in the number must be a multiple of 3.
   - 5 – All digits must be 5 or 0 *only*.
   - 6 – Digits must be even and sum of the digits must be a multiple of 3.
   - 9 – Sum of the digits must be a multiple of 9.

Note that 6 digit numbers conforming to rules above will be divisible by number indicated regardless of sequence of the digits. This is not the case with the set of 6 digit numbers (divisible by 13) which start the page. Those digits must be rotated in exact sequence for resulting numbers to be divisible by thirteen. Your students may notice this distinction or you may wish to point it out.

PAGE 55:

Sum of first seven terms = 3.2837385
Sum of first fifteen terms = 3.2081858
Sum of first twenty five terms = 3.1815767

Tire Wear – Tires will make over 30 million revolutions. (Well, actually it's 30,171,420)–Ed.

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Math Activity Cards for Fun.

Choose _____ cards and write your solutions on another piece of paper.

A few cards are very hard to do without writing directly on the card. If you choose a card like that, you could ask your teacher or the ICES teacher for a plastic sheet to put over the card so you could write with a washable felt pen. Or you may ask your teacher or the ICES teacher for a copy of that card to write on. (Check the ICES file first.) Color in the number of each card you do on the Math Activity Cards for Fun record sheet. If you do this study more than once, use the same record sheet.

Materials you will need are

**your copy of this contract...You will find one in the ICES file.
**your Math Activity Cards for Fun record sheet...You may take one from the ICES file.
**the Math Activity Cards for Fun...You will find the set in the Media Resource Center under the call number KS-793.7-M.
**pencil and paper (or plastic cover and washable felt pen, as explained above)

The work you turn in will be your solutions to the cards you choose.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Math Activity Cards for Fun

Teacher Information

Grades 2-3; one or two students

Time: Students can probably finish one or two cards each period

Assignment: Indicate how many cards you want the student(s) to do. There are 42 cards in the set. This study may be assigned more than one time until all cards have been completed. Cards require some understanding of number and shape recognition, and some of them call for addition, subtraction and, occasionally, chaining these processes. Some cards need to be written on; consumable copies of those cards may be ordered from IMC as needed.

IMC Information

Consumables: student record sheet (run two to a page; cut apart before sending to the school); copies of cards on an order basis (the first time a school asks, send 6 copies of the card requested)

Commercial material: Card set available from Teacher's Exchange in San Francisco, or from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274 for $4.95.

Processing: Remove "Suggestions" card, "record" card and card with lines and "name" at the bottom. Process into the library.

3/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Math Applications Kit - Cards.

☐ Do card number:______.

☐ Choose the card you would like to work on. Write it's number here________.

You should do the student handbook for the Math Applications Kit before you work on the cards unless you are sure you already know all of the measuring skills that the handbook teaches. When you use a card from the Math Applications Kit, read it carefully, take notes, and put the card back in the kit immediately. It is important that cards not be lost.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the Math Applications Kit...You will find it in the Media Resource Center with the call number KS-510-M.

**writing paper and other materials...Be sure you can obtain all the materials you will need before you begin working on a card.

The work you turn in will be a written report of the results of your investigation following the instructions on the card. Pages 18 and 19 of the student handbook for the Math Applications kit give helpful information on working with the cards.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Math Applications Kit - Cards

Teacher Information

Grades 4-6; intended for teams of two to four students, but possible for one student working alone.

Time: 3-5 periods per task card.

Assignment: Assign one card at a time. You may assign a specific card or let the student choose. If the student chooses his own task card, you may want to have him check with you before he begins to work. Be sure to check a box and add the card number if you select a card on the student contract sheet. The teacher's guide for the Math Applications Kit gives very specific information as to the mathematical skills that are related to each particular card. If a youngster needs work in a particular skill, the handbook will help you determine which card should be assigned. Students should have completed the student handbook before they begin individual cards, unless you are sure they have the measuring skills taught in the handbook.

IMC Information

Consumable: Record of cards completed (2 sides).

Commercial material: Kit from SRA, 259 East Erie St., Chicago, IL 60611, $75.00
Each upper-grade teacher may want his own teacher's manual, $2.19

Processing: Catalog kit into library. Teacher's guide should be filed separately in the library. Student Handbook should be filed in the ICES file (see contract sheet for Math Applications Kit - Student Handbook).

Rev. 5/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Math Applications Kit - Student Handbook.

This handbook will teach you the measuring skills you need to do the activity cards in the Math Applications Kit. The workbook for this study is consumable. You will write directly in it. Please look the workbook over carefully, before you begin the study, to be sure that you will want to finish it.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the student handbook for the Math Applications Kit...Take one from the ICES file.

**other materials as indicated in the student handbook.

**a pencil.

The work you turn in will be your completed student handbook.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Math Applications Kit-Student Handbook

Teacher Information

Grades 4-6; intended for a team of two to four students, but possible for one student working alone.

Time: 10 periods.

IMC Information

Commercial material: Student Handbook from Math Applications Kit, from SRA, 259 East Erie Street, Chicago, IL 60611, 70¢

Processing: Do not catalog student handbooks for library. Send directly to school to be filed in the ICES file; the workbook is consumable.

Rev. 5/76

Independent Curriculum Enrichment Studies

This study is for

Date to begin is

Your study will be Math Balance.

Do the cards in order. Keep going unless the cards get too hard for you. If that happens, mark down the number of the last card you have solved and see your teacher.

Your assignment is to do:

☐ Cards A-1 through B-4
☐ Cards C-1 through C-4
☐ Cards D-1 through E-1

Materials you will need are

- **your copy of this contract...You will find it in the ICES file.
- **the Math Balance. It is kept in the Media Resource Center.
- **the Math Balance task cards. The set is in the Media Resource Center under the call number KS-793.7-M.
- **pencil and paper.

The work you turn in will be a sheet of paper on which you will write new equations for the math balance. Be ready to show a teacher how to do the equations on the balance.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Math Balance Cards

Teacher Information

Grades 3-5; for two students

Time: 6 to 10 periods

Assignment: Check which cards the student is to do. A-1 through B-4 deal with addition; C-1 through C-4 with multiplication; and D-1 through E-1 with division. Students will write equations similar to those shown below. Be sure to have the students demonstrate use of the math balance for you.

ANSWER CARD

1. Possible answer; Card A-6

LEFT SIDE	RIGHT SIDE
peg 4 has 1 weight	peg 1 has 1 weight
peg 2 has 1 weight	peg 2 has 1 weight
	peg 3 has 1 weight

(4 + 2 = 1 + 2 + 3)

2. Possible answer; Card C-3

LEFT SIDE	RIGHT SIDE
peg 3 has 3 weights	peg 9 has 1 weight

(3 X 3 = 9)

3. Possible answer: Card D-1

LEFT SIDE	RIGHT SIDE
peg 10 has 3 weights	peg 6 has 5 weights

(30 ÷ 6 = 5)

IMC Information

Commercial material: The cards and math balance are available from Selective Educational Equipment, Inc., 3 Bridge Street, Newton, MA 02195 at $3.50 and $8.50, respectively.

Processing: Remove card E-2 and catalog the set for the library. Send Math Balance itself to the library with blue checkout card, pocket and copy number.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Math Games

Forty-three cards. Each card has a separate math game to help in making math skills easy for you. Your teacher will help you select which games will help. Most games need 2 or more students (each card will tell you) although some games need only a single student.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the set of Math Game cards...You will find it in the Media Resource Center under the call number KS-028.7-S.
- **a set of playing cards or dice as asked for on each card.
- **a few cards require other easy to find materials such as markers.
- **math grid. You will need this for cards 6, 12, 20, 28, 30 and 40. Get one from the ICES file.

The work you turn in will be

☒ the material asked for by the card or your report to the teacher on the results of the game.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Math Games

Teacher Information

Grades 3-5; for 1 or more students.

Time: ½ to 1 period for each game.

Assignment: The chart below lists the cards according to the skills they reinforce. You must keep in mind the child's skills and needs in helping him select a game which will be profitable for him.

SUGGESTIONS

MATERIALS: JUST ADD PLAYING CARDS AND DICE AND THIS SET OF ACTIVITIES IS READY TO USE. If you use a regular deck, use the ace for one. Or you can make your own cards with a permanent marker on oak tag. Use commercial dice or put numbers on wooden cubes. Foam rubber cubes make good silent dice.

You may want to duplicate the grid on card **44** to use with activities **6, 12, 20, 28, 30** and **40**. Graph paper may also be used. Cards **45** and **46** show an addition card and multiplication table to help students check their work.

The chart below lists the cards according to the skills they reinforce.

SKILL	**CARD #**
# order	2, 3
+ under 12	4 thru 8, 27, 41, 43
− under 10	9, 11, 41
advanced +	10, 13 thru 17, 32 thru 35
advanced −	17, 18, 33
multiplication	30 thru 35

SKILL	**CARD #**
+ − × ÷ together	29, 36 thru 40, 42
ordered pairs	12, 20
place value	14, 18, 21, 22, 23
logic & probability	19, 24, 26, 43
math terms	25
positive & negative #'s	28

IMC Information

Consumables: Duplicate grid from card #44 2 to a sheet and cut in half.

Commercial materials: Card set available from Frank Schaffer Publications Inc. 26616 Indian Peak Road, Palos Verdes Peninsula CA, 90274 or Teacher's Exchange of San Francisco, 600 35th Avenue, San Francisco CA, 94121, at $4.95.

Processing: Remove teacher suggestion card, and cards 44, 45 and 46. Catalog into library.

8/77

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Math Magic Probability.

This is a study designed to introduce you to mathematical probability. There are 7 activity envelopes. Do the activities in order. You will need about one or two class periods for each activity. Take a copy of the consumable workbook and follow the directions. Be sure to record your completed assignments under "Work Done" on the back of this contract.

Materials you will need are

**your copy of this contract...You will find it in the ICES file.

**the 7 activity envelopes...You will find them in the ICES file.

**a copy of the Math Magic Workbook. Take one from the ICES file.

**a penny, a nickel, scissors, paperclips, tagboard, pencil.

The work you turn in will be your work done sheet and your workbook. After you do each activity, cross it off here.

1 2 3 4 5 6 7

When you need help, see

Show your work to your teacher at the end of each activity.

Try to finish your study by

Turn in the finished work to

MATH
Math Magic Probability

Teacher Information

Grades 3-4; for one student.

Time: one or two periods per activity.

Assignment: Students work through the study in the following order: (1) Spin Off; (2) Dynamic Dice; (3) Funny Money; (4) Tack Toss; (5) Mystery Marbles; (6) Card Capers; (7) Tetrahedron Toss.

IMC Information

Study: cover and 14 pages, which is consumable.

Add'l material: seven activity envelopes, containing 3 marbles, 10 thumb tacks, 2 dice, 1 deck playing cards, paper bag, paper cup.

Processing: The study-workbook is consumable. Each activity envelope contains the activity card and materials needed for that activity. Each envelope is appropriately labelled and provided with a buff check-out card and pocket, and filed in the ICES file.

1/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Metric Number Sticks.

Make the puzzle shapes in order. After you finish each page, write its number on the back of this sheet under "Work Done" for that day. Beginning with task card 4, write down your answers on a separate piece of paper. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Metric Number Sticks set and booklet. You will find them in the Media Resource Center under the call number QA-793.7-M.

The work you turn in will be this contract, showing which pages you have finished, and your number page. Be ready to show a teacher any of the puzzles they would like to see you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Metric Number Sticks

Teacher Information

Grades 1-6; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: Metric Number Sticks set and booklet is available from Merrick Creative Components, P.O. Box 4912, Hayward, CA 94542 at $3.25.

Processing: Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Money Matters

In this study there are 42 task cards with activities related to MONEY! Select as many cards as you wish or do the whole set. When possible write your answers on a separate sheet of paper. Otherwise do your work in grease pencil or marking pen on a sheet of acetate placed over the card. When you do this, have your answers checked before going on to other cards.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a set of Money Matters task cards...Check one out from the Media Resource Center. You will find it under the call number KS-332.4-M.

**paper, pencil, acetate sheet and grease pencil or marking pen.

The work you turn in will be

☐ Your answers for cards numbers (list numbers) ______________________________

____

____

☐ Your answers to the entire set of cards.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Money Matters

Teacher Information

Grades 2-4; for one student.

Time: One to many periods depending on number of cards selected.

Assignment: Select cards appropriate for the age and ability of the students.

IMC Information

Additional teacher information: answer sheet (2 sides).

Consumable: Score card.

Commercial material: Wise Owl Publications Money Matters Task Cards (Set #221) are available from Warren's Educational Supplies, 1000 Detroit Ave. Concord CA, 94518, at $4.95 per set.

Processing: Remove title card and advertising card. Xerox score card 2 to a sheet and cut in half. Xerox 3 answer cards on 2 sides of a sheet to immediately follow teachers page. Catalog set of cards into library.

8/77

ANSWER KEY FOR MONEY MATTERS

A.

(More obvious answers omitted)

#4 B. thirty cents; C. one dollar, twenty-five cents; D. four cents; E. forty-nine cents; F. one cent; G. fifteen cents; H. fifty cents; I. one dollar; J. five dollars and twenty-five cents

#6 First row: 55¢, 15¢, 30¢, 6¢; Second row: 13¢, 58¢, 18¢, 33¢, 9¢; Third row: 30¢, 75¢, 35¢, 50¢, 26¢; Fourth row: 15¢, 60¢, 20¢, 35¢, 11¢

#8 A. nickel; B. dime; C. dime; D. quarter; E. half dollar; F. dollar

#9 B. 5,2; C. 4,1; D. 3,3; E. 2,3; F. 3,3; G. 2,3; H. 2,3; I. 6,1

#10 A. 26¢; B. coins; C. 45¢; D. 5¢, 3¢, 50¢; E. 1¢, 5¢, 10¢, 25¢; F. $.85; G. 2 dimes, 3 nickels; H. $1.25; I. 4 dimes; J. 5 quarters

#11 B. 4 nickels, 1 dime, 1 penny; C. 1 quarter, 1 nickel, 1 penny; D. 1 half dollar, 1 quarter, 1 nickel, 4 pennies; E. 3 quarters, 1 penny; F. 1 quarter, 2 dimes, 1 nickel, 2 pennies; G. 3 nickels, 3 pennies; H. 2 dimes, 1 nickel, 3 pennies; I. 1 quarter, 1 dime, 1 nickel, 3 pennies

#12 A. $12.50; B. $5.50; C. $7.50; D. two years

#13 B. 5 quarters, 1 dime; C. 4 quarters, 2 dimes; D. 3 quarters, 2 dimes; E. 4 quarters, 1 dime, 1 nickel; F. 5 quarters, 2 dimes; G. 4 quarters; H. 5 quarters; I. 4 quarters, 1 nickel; J. 5 quarters, 1 nickel; K. 5 quarters, 1 dime, 1 nickel

#14 $3.65; $.11; $6.53; $.11; $1.49

ANSWER KEY FOR MONEY MATTERS

B.

#15 A. 1 half dollar, 1 quarter, 1 dime, 1 nickel (1¢); B. 1 half dollar, 1 quarter (7¢); C. 1 half dollar, 1 dime (1¢); D. 1 half dollar, 1 quarter (3¢); E. 1 half dollar (12¢)

#16 10 dimes = 20 nickels; 2 quarters = 5 dimes; 2 dimes, 1 nickel = 25 pennies

#17 $1.78, $1.29, $1.58, $1.20, $.45; Total: $6.30; Change: $13.70

#18 $2.67, $1.40, $1.20, $2.40, $1.74; Total: $9.41

#19 1. 56¢; 2. 35¢; 3. 65¢; 4. 41¢; 5. 50¢; Total: $2.47

#20 1. right; 2. left; 3. right; 4. left; 5. right

#21 A, B, C. E, F, G, (left); D, H (right); Total: $2.10

#26 2. 54¢; 3. 13¢; 4. 35¢; 5. 17¢; 6. $1.20; 7. 47¢; 8. 40¢; 9. $1.95

#27 38¢; 95¢; 75¢; $1.05

#30 1. $30,000; 2. $5.00; 3. $75; 4. $5000; 5. $300; 6. 25¢

#31 1. $1.00; 2. 13 dimes, 7 pennies; 3. $1.00; 4. 4 dollars, 5 quarters; 5. 25¢; 6. 25¢; 7. $.17, $.25, 9¢

#32 1. $1.11; 2. 80¢; 3. 16¢; 4. $1.51; 5. $1.55; 6. $1.06; 7. 81¢; 8. $1.56

#33 1. shirt, belt, socks; 2. tie, shirt; 3. tie, shirt, bag

ANSWER KEY FOR MONEY MATTERS

#34 2. 3¢, 6¢; 3. 5¢, 10¢; 4. 5¢, 15¢; 5. 15¢, 30¢; 6. 5¢, 30¢

#35 Row 1: 51¢; Row 2: 95¢; Row 3: $1.30; Total: $2.76

#36 1. $3.40; 2. $1.98; 3. $1.17; 4. $2.78; 5. $1.68; 6. $1.77;
Total: $12.78; Change: $7.22

#37 1. 6¢; 2. $3.15; 3. $5.75; 4. $1.43

#38 Clockwise from head: $2.30; $2.35; $2.50; $2.75; $3.25; $2.26

#40 One hour - 30¢, 6 nickels or 3 dimes; 40 minutes - 20¢, 4 nickels or two dimes; 80 minutes - 40¢, 8 nickels or 4 dimes

#41 1. $2.05; 2. $1.00; 3. $1.95

#42 Ruble - Russia; Drachma - Greece; Dinar - Iran; Guilder - Netherlands;
Franc - France; Mark - Germany; Lira - Italy; Peso - Mexico;
Yen - Japan; Pound - England

UNITED STATES OF AMERICA
ONE DOLLAR
LIBERTY
1971

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be More Fun and Games with Math -- Primary.

You will look at certain pages in the book and choose an activity to try. Choose from these pages: _____ _____ _____ _____.

Some games may be played right on the page. Some you will copy. Some you can do by putting a plastic cover over the page. Some you will need to have copied for you by your teacher. If you are not sure what to do, see your teacher. When you choose your page, think about whether you will need a partner.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the book. You will find it in the Media Resource Center under the call number 793.7-H. DO NOT WRITE IN THE BOOK.

**other materials...You may need paper, graph paper, cardboard, crayons, pencil or pen, dice, a plastic page cover and a china marker, worksheets and so on. Before you begin a page, be sure you can get all the materials you need to finish it.

The work you turn in will be your contract sheet. On the back of this sheet, under "Work Done," be sure you write the numbers of the pages as you do them. REMEMBER, DO NOT WRITE IN THE BOOK. Most of the activities will ask you to write or draw something. Turn in that work also.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
More Fun and Games with Mathematics -- Primary

Teacher Information

Grades 1-3; some activities are for one, others for 2-4 children.

Time: Allow one to three periods per page.

Assignment: Indicate which activities from which the student is to choose. There are too many just to suggest that the youngster select what he wants. You may want to have the pupil bring the book to you and choose with him. You may need to duplicate some sheets -- note copying permission on the back of the title page. This study may be done re repeatedly, using a different activity each time.

IMC Information

Commercial material: The book is from Teachers Exchange of San Francisco, 600-35th Avenue, San Francisco, CA 94121, at $5.95.
by James Haugaard

Processing: Catalog the book into the library, but place it in an envelope so that pages will not be lost if they are removed for duplication.

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Numbers and Clues

You will choose activity cards which will help build problem solving ability with numbers under 50. The cards contain clever math stories and cartoons.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a set of Numbers and Clues activity cards. You will find them in the Media Resource Center under the call number KS-793.7-N.
**a Numbers and Clues record card...Get one from the ICES file.
**paper and pencil.

The work you turn in will be

☐ your answers to cards no.______________________________

☐ your answers to the complete set of cards.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Numbers and Clues

Teacher Information

Grades 2-4; for one student

Time: One or more periods depending on the numbers of cards selected.

NUMBERS & CLUES ANSWER CARD

1. 14 points, 9 points, 10 points, Roy's Team
2. 43 drops, 32 things, 44 times
3. 43 animals, 34 tigers and cubs, 41 birds
4. 31 planes, 26 birds, 48 bees
5. 31 cats & pumpkins, 21 things, 41 apples & popcorn balls
6. 32 turtles & fish, 42 flowers, 31 mice
7. 45 rocks, 44 rocks, Team A, 1 more, Paul
8. 22 donuts, 14 donuts, 31 donuts
9. 9 apples, 8 walnuts, 9 cherries
10. 15 masks, 24 children, 7 masks
11. 18 candies, 7 markers, 14 times
12. 18 boys, 26 boys, 7 pollywogs
13. 4 cards, 5 cards, 13 cards
14. 14 worms, 34 cocoons, 27 cocoons
15. 11 boys, 7 frogs, 10 frogs
16. 8 boys & girls, 11 cars, 6 balloons
17. 2 stacks, 9 bottles, 2 hours
18. 19 shells, 19 pails, 25 crabs
19. 47 miles, 7 tickets, 26 people
20. 28 nuts, 29 birds, 14 trees
21. 42 points, 3 points, Friday, 7 points
22. 44 worms, 16 worms, 5 worms
23. 16 cookies, 44 cookies, 48 cookies
24. 43 people, 1½ hours, 17 popsicles
25. 2:30, Eddie goes up the tree, Father comes home, 5:30
26. 2 hours, 3 hours, 1 hour
27. 2 hours, 4 hours, 1 hour
28. 3 o'clock, 5 o'clock, 1 hour
29. 4 hours, 30 minutes, 5 o'clock

30. to 32. Answers will depend on student's work.

33. 10 cents, 8 cents, Jane, 2 cents
34. 49 pages, 14 cents, 34 pages
35. Yes, 30 cents, yes, Mary Ann, 5 cents
36. 15 cents, 33 cents, 3 cents
37. 35 cents, 11 cents, Yes
38. 42 fish, 47 inches, 9 pets
39. 37 yards, 44 yards, 40 yards
40. 29 cm, 7 cm, 1 m
41. 3 inches, 3 inches, 2 yards
42. 3 inches, 7 inches, 37 inches

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IMC Information

Consumable: Record card for Numbers and Clues

Commercial material: Teaching Stuff set TS5206 Numbers and Clues is available from Warren's Educational Supplies, 1000 Detroit Ave. Concord, Calif., 94518, $4.95.

Processing: Remove Learning Station Idea card and Teaching Stuff advertising card. Duplicate answer card on backs of teachers page. Xerox record card two to a page and cut in half. Catalog cards into library.

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Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Pattern Blocks Record Sheets.

First you will need to look through the booklet called Pattern Blocks Record Sheets. Your assignment is to choose ______ of these sheets and work them out with a set of pattern block pieces. There are copies of each sheet in the ICES file so that you can write down your work. As you look through the booklet, be sure to write down the numbers of the record sheets you will do, so you can get the correct worksheets in the ICES file. If you take the last sheet for any page in the file, or if the page you want is missing, ask your teacher or the ICES teacher to order more. You may work on the sheets in any order. Put the numbers of the cards you work on under "Work Done" on the back of your copy of this contract.

Materials you will need are

--your copy of this contract...You will find it in the ICES file.
--a set of Pattern Blocks...They are in the Media Resource Center.
---the booklet called "Pattern Blocks Record Sheets...You will find it in the Media Resource Center under the call number 793.7-P.
--your copies of the record sheets you want to work on...You will find them in the ICES file.
--a pencil

The work you turn in will be your completed record sheets.

Each record sheet should show how you laid the shapes to make a symmetrical design. It should also show your answers to the questions on the record sheet. You will also want to write down any other interesting discoveries you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Pattern Blocks Record Sheets

Teacher Information
Grades 3-6; for one student

Time: ten periods

Assignment: The record sheets are intended to be used after the student has been given sufficient time for free exploration with pattern blocks. These record sheets build further upon the Pattern Blocks Task Cards; you may want to have the student do the task cards first. You may want to assign less than the full set of 23 record sheets at a time. Be sure to fill in the number of sheets you expect the student to complete.

IMC Information
Consumables: One set of the record sheets is permanently available, however consumable copies are also provided for the ICES file. If a school requests additional copies, always provide at least five of that particular sheet.
Commercial Material: Pattern Blocks Task Cards and the Pattern Blocks Record Sheets come in a single package from Creative Teaching Associates, PO Box 293, Fresno, CA 93708 at $4.95.

Processing: Remove the record sheets from the plastic envelope and put them into a paper folder with brads. The task cards and the record sheets are cataloged separately into the library. Remove the page "Fun Cards for Pattern Blocks" from the Record Sheets.

3/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Pattern Blocks Task Cards. This is a set of 23 task card puzzles. Your assignment is to choose _____ of these cards and work them out with a set of pattern block pieces. You may choose the cards in any order. Put the numbers of the cards you work on under "Work Done" on the back of your copy of this contract.

Materials you will need are

- **your copy of this contract...You will find it in the ICES file.
- **a set of Pattern Blocks...They are in the Media Resource Center.
- **the Pattern Blocks Task Cards...You will find them in the Media Resources Center with the call number KS-793.7-P.
- **pencil and paper or cards to make new puzzles

The work you turn in will be three new Pattern Blocks Puzzles that you will invent for other students to solve.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Pattern Blocks Task Cards

Teacher Information

Grades 2-5; for one to four students

Time: five to ten periods

Assignment: The task cards are intended to be used after the child has been given sufficient time for free exploration with pattern blocks. You may want to assign less than the full set of 23 cards at a time. Be sure to fill in the number of cards you expect the student to complete. The student may want to follow this up with Pattern Blocks Record Sheets.

IMC Information

Commercial Material: Pattern Blocks Task Cards and the Pattern Blocks Record Sheets come in a single package from Creative Teaching Associates, PO Box 293, Fresno, CA 93708 at $4.95.

Processing: Catalog the task cards and the record sheets separately into the library. Remove the page "Fun Cards for Pattern Blocks" from the Record Sheets.

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Patterns and Number Puzzles.

You will do the color by number pages circled below from the book Fun and Games with Mathematics--Primary by James C. Haugaard.

76 77 78 79 80 81 82

After you finish, check your work with the book listed below.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of your worksheets...Take them from the ICES file.
- **the book Fun and Games with Mathematics--Primary by James C. Haugaard... You will find it in the Media Resource Center under the call number 793.7-H.
- **crayons.

The work you turn in will be your completed pictures.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Patterns and Number Puzzles

Teacher Information

Grades 1 - 2; for one student.

Time: One period per picture.

Assignment: These sheets provide practice in addition and subtraction facts as shown:

76 - Sums 1 to 8
77 - Sums 4 to 8
78 - Sums 8 to 13
79 - Sums 11 to 13
80 - Sums 13 to 18
81 - Differences 5 to 1
82 - Differences 7 to 3

The answers have been colored into the book. (Note: The book Fun and Games with Mathematics--Primary provides a number of games, manipulatives and graphing activities which, though not suitable for ICES, may provide classroom enrichment for able math students.)

IMC Information

Consumables: Prepare 10 copies of each picture for the ICES file. All seven puzzles can go in a single envelope. (Do not collate.) Keep a set of masters.

Commercial material: Book from Contemporary Ideas, P. O. Box 1703, Los Gatos, Ca 95030; $5.95 each; Prentice-Hall Media, 150 White Plains Road, Tarrytown, New York 10591.

Processing: After puzzles have been duplicated and one set of masters retained, color pages 76 through 82 to serve as answer keys. color lightly and/or use hard crayons or insert white paper to avoid rubbing off. Place the book in an envelope so that pages can be torn out for reproduction without becoming lost. Catalog the book into the library. Paste an adhesive label on each page which has been colored reading: "A copy of this worksheet may be obtained from the ICES file."

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Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Pentamino Blocks.

Do the pages in order. At the end of each period write down the kinds of shapes you worked on that day under "Work Done" on the back of this sheet. If you play some games of Penta-Pile, write down your partners' names, how long the game lasted, and who won. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Pentamino Blocks set and booklet. You will find them in the Media Resource Center under the call number QA-793.7-P.

The work you turn in will be this contract, showing the work you have done. Be ready to show a teacher any of the puzzles they would like to see you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Pentamino Blocks

Teacher Information

Grades 3-6; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: *Pentamino Blocks* set and booklet is available from Herrick Creative Components, P.O. Box 4912, Hayward, CA 94548 at $8.95.

Processing: Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Primary Dimension Color Games.

You will solve several number puzzles using color. If some of the puzzles are too hard for you, just tell your teacher. You can check pages 14 and 15 by looking in Primary Dimension, Book 1. The other sheets can be done more than one way.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the book Primary Dimension, Book 1 by John Lettau...You will find it in the Media Resource Center under the call number 793.7 L.
**your set of work sheets...Take one from the ICES file.
**a set of crayons.

The work you turn in will be your colored pages.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Primary Dimension Color Games

Teacher Information

Grades: 2-3; for one student.

Time: 5 to 8 periods.

Assignment: Requires addition of two-digit numbers; "multiples of 2 and 3" are explained.

IMC Information

Consumables: Duplicate pages in this sequence: 14, 15, 77, 6, 7, 8. Use white paper; one side only. Label pages with subject and title of study before duplicating. Make 10 sets per school. Keep a master set at IMC for further refills.

Commercial material: Book from L&M Educational Enterprises, P.O. Box 88, Santa Maria, Ca 93454 or Teachers Exchange, 600 - 35th Avenue, San Francisco, Ca 94121; $3.50 each.

Processing: Color pages 14 and 15 to serve as an answer key (remember to xerox your master copy first!). Catalog book into the library, but put it in an envelope (preferably transparent). Place an adhesive label on each of these pages reading: "A copy of this worksheet may be found in the ICES file.

4/76

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Primary Dimension Color Pictures.

You will do six number puzzles with colors. You can check your answers in Primary Dimension, Book 1.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the book Primary Dimension, Book 1 by John Lettau...You will find it in the Media Resource Center under the call number 793.7 L.
- **your set of worksheets...Take one from the ICES file.
- **crayons.

The work you turn in will be your colored worksheets.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Primary Dimension Color Pictures

Teacher Information

Grades: 1-2; for one student.

Time: 6 to 8 periods.

Assignment: Pages require adding with sums to 20; subtracting with differences to 9; multiplying with products to 18 (including, for example, 1 x 15). To omit multiplication, tell student to skip the sheet numbered 87.

IMC Information

Consumable: Duplicate pages 84 through 89, ten sets per school. Keep a master set at IMC. Label all pages with subject and title of study.

Commercial material: Book from L&M Educational Enterprises, P. O. Box 88, Santa Maria, Ca 93454 or Teachers Exchange, 600 - 35th Avenue, San Francisco, Ca 94121; $3.50 each.

Processing: Color pages 84 through 89 to serve as an answer Key. (Be sure to xerox your master copy first.) Catalog book into the library, but put it in an envelope (preferably transparent). Place an adhesive label on each of these pages reading: "A copy of this worksheet may be found in the ICES file."

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Primary Dimension Number Puzzles. You will solve each number puzzle, using a plastic page cover and a china marking pencil or orange felt pen. You can check most of your answers in the back of the book as soon as you finish the page. Do these pages:

81, 73, 4, 25, 26, 64, 65, 75

Save your answers to page 75. If some pages are too hard for you, just tell your teacher.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the book Primary Dimension, Book 1 by John Lettau...you will find it in the Media Resource Center under the call number 793.7 L.
- **a plastic overlay and a china marking pencil or orange felt pen.

The work you turn in will be your answer to page 75. Show your teacher how these puzzles add up.

When you need help, see

Try to finish your study by

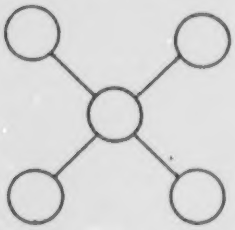
Turn in the finished work to

MATHEMATICS
Primary Dimension Number Puzzles

Teacher Information

Grades: 2-3; for one student

Time: 5 to 10 periods.



Assignment: Requires some addition of two-digit numbers. When you look at page 75, you will want to know that the directions were: (1) Place the first 5 even numbers in the circles so that the sum of each row of circles is 18. (2) Place the numbers 1,2,3,4,5 so that each row of circles has a sum of 9. (3) Place the first odd numbers in the circles so that the sum of each row of circles is 15. (You may want to ditto the pages rather than to use plastic overlays.)

IMC Information

Commercial material: Book from L&M Educational Enterprises, P.O. Box 88, Santa Maria, Ca 93454 or Teachers Exchange, 600 - 35th Avenue, San Francisco, Ca 94121; $3.50 each.

Processing: Catalog book into the library. Put it in an envelope (preferably transparent) in case teachers remove pages to duplicate them.

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Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Primary Dimension Shape Puzzles.

Do you have sharp eyes? In this study you will solve 4 shape puzzles from Primary Dimension, Book 1. Do pages 21, 50, 51 and 55. Write answers on your own paper. Check your answers at the back of the book. Ask your teacher to help you if you do not agree with the answer in the book.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **Primary Dimension, Book 1 by John Lettau...You will find it in the Media Resource Center under the call number 793.7 L.
- **paper and pencil.

The work you turn in will be your answer sheet. Be sure to talk with your teacher about any answer you do not agree with.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Primary Dimension Shape Puzzles

Teacher Information

Grades: 1-2; for one student

Time: 5 periods.

IMC Information

Commercial material: Book from L&M Educational Enterprises, P. O. Box 88, Santa Maria, Ca 93454 or Teachers Exchange, 600 - 35th Avenue, San Francisco, Ca 94121; $3.50 each.

Processing: Catalog book into the library. Put it in an envelope (preferably transparent) in case teachers remove pages to duplicate them.

4/76

Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be Primary Dimension Sum-Action

Look carefully to find the numbers that add up to the magic sum. You will do five Sum-Action number puzzles. Then you can check your work at the back of Primary Dimension, Book 1. Can you make a new Sum-Action puzzle?

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the book Primary Dimension, Book 1 by John Lettau...you will find it in the Media Resource Center under the call number 793.7 L.
- **a set of work pages--take one from the ICES file.
- **a pencil.

The work you turn in will be your completed worksheets.

If your answers do not agree with the answers in the book, talk to your teacher about it. Can you also make a new Sum-Action puzzle for someone else to solve?

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
Primary Dimension Sum-Action

Teacher Information

Grades: 1-2; for one student.

Time: 3 to 5 periods.

Assignment: Requires adding two or more one-digit numbers that total up to 12.

IMC Information

Consumable: Duplicate pages 36 through 41, 10 sets per school. Label each page with subject and title before duplicating. Keep a master copy at IMC.

Commercial material: Book from L&M Educational Enterprises, P.O. Box 83, Santa Maria, Ca 93454 or Teachers Exchange, 600 - 35th Avenue, San Francisco, Ca 94121; $3.50 each.

Processing: Catalog book into the library. Put it in an envelope (preferably transparent) in case teachers remove pages to duplicate them. Place an adhesive label on each page duplicated reading: "A copy of this worksheet may be obtained from the ICES file."

4/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Probability, by Charles F. Linn.

This book contains four experiments in probability. You will make charts and graphs of your findings.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the book Probability...You will find it in the Media Resource Center under the call number 519-L.
- **pencil, paper, graph paper, 10 coins, 20 tacks, light cardboard, tracing paper, glue, scissors, and poker chips...These materials should be available in the Media Resource Center. Be sure you can get all the materials you need before you begin to work.

The work you turn in will be the charts and graphs of your findings.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH

Probability, by Charles F. Linn

Teacher Information

Grades: 4-6; for one to two students.

Time: 2-3 periods.

IMC Information

Commerical material: Book from T.Y. Crowell, 666 Fifth Ave., New York, NY 10019 , at $3.57 each.

Processing: Catalog book into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Projects in Metric Measurement, Set 1, Intermediate Level

☐ Select _____ cards from the ________________ category.

☐ Work until the due date, doing as many cards as you can do well from ________________ category.

Before you settle on a card, be sure you will be able to get all the supplies you will need. Be sure to write down the category and number of each card you work on in the "Work Done" column on the back of this contract sheet.

Materials you will need are

- **your copy of this contract...You may take one from the ICES file.
- **Projects in Metric Measurement, Set 1: Intermediate Level...You will find it in the Media Resource Center under the call number KS-389-P.
- **pencil and paper
- **other supplies as needed for the cards you choose...Be sure you will be able to get all the supplies you need before you begin to work.

The work you turn in will be the graphs, charts or other records of the work you do as shown on each card.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH

Projects in Metric Measurement, Set 1: Intermediate Level

Teacher Information

Grades 3-5; one or two students

Time: One to several periods, depending upon the number of cards assigned and the particular cards chosen.

Assignment: Check and fill in the appropriate assignment on the student sheet. You may want to select a particular category. The available categories and the number of activities in each are listed below:

Length	49
Area	20
Volume	14
Mass	19
Temperature	9
Miscellaneous	9

The cards are very roughly graduated in difficulty within each category. This study could be assigned more than one time, using different cards each time.

IMC Information

Commercial Material: Task cards available from Creative Teaching Press, 514 Hermose Vista Ave., Monterey Park, CA 91754.

Processing: Remove "Teacher's Guide" sheet and two blank note cards at back of box. Insert tab dividers where appropriate. Process into the library,

3/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Property Blocks.

Make the puzzle shapes in order. After you finish each one, put its number on the back of this sheet under "Work Done" for that day. If there is a question, write your answer on the back of this sheet. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Property Blocks set and booklet. You will find them in the Media Resource Center under the call number GA-793.7-P.

The work you turn in will be this contract, showing which puzzle shapes you have finished. Be ready to show a teacher any of the puzzles they would like to see you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Property Blocks

Teacher Information

Grades 3-6; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: *Property Blocks* set and booklet is available from Merrick Creative Components, P.O. Box 4912, Hayward, CA 94548 at $3.95.

Processing: Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Rainbow Blocks.

Make the puzzle shapes in order. After you finish each one, put its number on the back of this sheet under "Work Done" for that day. Look carefully at the introduction before you begin. If the problems get too hard, see your teacher. You may want to try to design a new puzzle and draw it as shown on pages 29-30 of the booklet.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Rainbow Blocks set and booklet. You will find them in the Media Resource Center under the call number GA-793.7-R.

The work you turn in will be this contract, showing which puzzle shapes you have finished. Be ready to show a teacher any of the puzzles they would like to see you make. If you make up a new puzzle, show it to your teacher.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Rainbow Blocks

Teacher Information

Grades 3-6; one student

Time: varies widely up to about 15 periods

Assignment: Be sure the student understands he may see you if the problems become too difficult.

IMC Information

Commercial material: Rainbow Blocks set and booklet available from Merrick Creative Components, P.O. Box 4912, Hayward, CA 94548 at $4.95.

Processing: Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be A Roomful of Water

Have you ever wondered just how long it would take to fill your classroom with water from a faucet, from the floor to the ceiling? Probably not--but it does pose an interesting problem--and in this study YOU are going to calculate how long it will take. You will also choose and do one AQUATIVITY.

For the purpose of this study pretend that no water would leak out under the doors or through the windows.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**a stopwatch...Ask your teacher or MGM resource teacher where to get this.
**paper and pencil.
**a gallon container.
**metric containers for some of the AQUATIVITIES.
**a pocket calculator (this saves a lot of time but isn't absolutely necessary).

The work you turn in will be

☐ your calculation of how long it would take to fill your classroom with water.
☐ an AQUATIVITY of your choice.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
A Roomful of Water

Teacher Information

Grades 4-6; for one or more students.

Time: 1 or 2 periods for basic study. Additional time for AQUATIVITY.

Assignment: The intent of the study is to get the students interested in measuring and calculating. A small pocket calculator can be a big help. Students may wish to do the ICES calculator study before doing this one. For some of the activities students will need permission to be out of the classroom to measure the school, classrooms, etc., and will also need the permission of individual teachers to measure their rooms. You may have to lay some groundwork for this. Also make sure the student(s) know how to read a stopwatch before beginning this study. Younger students who have not yet been taught to convert fractions to decimals, etc., may need some assistance or a quick lesson at that stage of the study. Students must also know how to multiply by fractions or decimals in order to do the necessary calculations for this study.

IMC Information

Study: cover and 2 pages.

8/77

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be School Statistics or How Much Did Our School Grow?

In this study you and several other students will measure and weigh all of the students in your school twice- - - - -once in September and once in May. You will need the permission of the principal and all of the teachers in order to do this study. For each grade you will calculate the average height and weight of the students. Then you will calculate the average height and weight of the boys and of the girls at each grade level. You will compare the averages for each of the grades and determine at which grades the most growth took place. In May you will calculate the cumulative growth of each grade How many total inches were grown at a grade level when everyone's growth during the year is added together? Finally you will determine the total growth of your school by adding together everyone's growth. How much will your school have grown in height. Will you report it in inches - - - - - feet - - - - - yards? Just how many pounds heavier are all the students at the end of the year than they were in the beginning? This is an interesting study which will involve the whole school and one in which everyone will be interested in the results. Your results can be reported to the rest of the school by means of large graphs which can be displayed in the library and/or by articles you write for the school paper. Perhaps you might even like to organize a school-wide CONTEST to see who can guess the CLOSEST as to how many inches or how many pounds your school grew during the year. Sound like fun? GIVE IT A TRY!

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**the nurses room scale with attached measuring device.
**paper and pencil.
**School Statistics Records Sheets (one for each class)
**a School Statistics Total Sheet
**a School Statistics Data Sheet

These can be obtained from the ICES file when you need them.

The work you turn in will be

- ☐ your completed statistics in September
- ☐ your completed statistics in May
- ☐ your GRAND TOTAL of the school's growth in height and weight
- ☐ your GRAPHACTIVITY

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH

School Statistics or How Much Did Our School Grow?

Teacher Information

Grades 4-6; for six to ten students.

Time: September through May.

Assignment: You will probably have to lay the groundwork for the students doing this study since you will need the permission of the principal and the cooperation of ALL the teachers. You may have to help the students in initially organizing themselves and dividing up the work. If the students do an effective job of sharing their findings, this can become a project in which the entire school is interested. The children will be gathering data, analyzing them. While most of the work for the actual study will take place in September and May, students can work on their GRAPHACTIVITIES during the in-between months. Assist the group of students in choosing GRAPHACTIVITIES so that each of the three choices are done by someone.
IMPORTANT: If you cannot get this study started early in September, DON'T GET IT STARTED AT ALL!

IMC Information

Study: Cover and 5 pages.

Consumables: School Statistics Record Sheet, School Statistics Data Sheet and School Statistics Total Sheet.

8/77

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be SEE Calculator.

The SEE calculator is a small plastic calculating machine. To do this study, you will use this machine along with 24 task cards. The set of cards should be done in order.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a SEE calculator...You will find it in the ICES file.
- **the set of SEE calculator task cards...You will find them in the Media Resource Center under the call number KS-513-S.
- **paper and pencil.

The work you turn in will be the completed equations and problems as called for on the task cards.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
SEE Calculator

Teacher Information

Grades 3-6; for a team of two students.

Time: Students will complete one or two units in a period.

Assignment: The student must work through the series of 24 cards in sequence. Cards A-1 to A-4 explain use of the calculator; cards B-1 through C-3 cover addition of two to four digit numbers; cards D-1 through D-5 cover subtraction of one to four digit numbers; cards E-1 through E-3 cover multiplication of one and two digit numbers; cards F-1 through F-3 cover division of one to four digit numbers; card G-1 deals with decimals; card H-1 is a game card; cards I-1 and I-2 are review cards.

IMC Information

Commercial material: Set of cards from SEE, 3 Bridge St., Newton, MA 02195, or from The Magic Horse, 2118-A Vine St., Berkeley, CA 94709, $4.95. SEE Calculator, same sources, $2.95.

Processing: Catalog task cards into the library. Each calculator goes into a 9x12 checkout envelope set up for the ICES file.

Rev. 5/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Skills for Everyday Living, Book 1

This booklet contains a wide range of project-type problems similar to those you will face in everyday living at home, at work, and in your community. Each project requires the use of certain basic math skills. Some require no more than basic addition or subtraction. A few require that you understand decimal fractions and percent. Do not attempt those particular problems unless you have some knowledge of these skills. A review of these skills are included in the booklet. With your teacher or MGM resource aide look over the list of kinds of problems and select those you wish to do. Write these on the front of your contract. DO NOT write in the booklet itself. DO write all of your answers on lined paper numbering them carefully. These are FUN PROBLEMS!

Materials you will need are

**a copy of this contract...Take one from the ICES file.

**a copy of the booklet Skills for Everyday Living, Book 1...You will find it in the Media Resource Center with the call number 640.73-W.

**lined paper.

**pencil.

The work you turn in will be your answers to the subject problems you have listed here:

______________________ ______________________
______________________ ______________________
______________________ ______________________

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Skills for Everyday Living, Book 1

Teacher Information

Grade 6; for one student.

Time: 2-3 periods per subject.

Assignment: With the student look over the subjects contained in the booklet. Help him select those you feel are appropriate. For those areas which require it, be sure the student has some knowledge of decimal fractions and percent even though the booklet contains a review of these. This study provides students with excellent examples of the relevance of mathematics to a variety of subject areas. Problems for each subject area should be completely corrected before allowing the student to move on to a new area.

Subject Areas Included*

Using a Forest Service Recreation Map
Understanding a Calendar
Sales Slips and Making Change
Time Zones
Making Telephone Calls
Your Phone Bill
Using a Bus Schedule
Postal Services
What the Metric System Is All About
Comparing at the Market
How to Multiply & Divide Decimal Fractions
Understanding Percent
Percent in the Marketplace
Buying Beef From the Butcher
Electricity in Your Home
Social Security
Work Permits and Job Applications
Savings Accounts

*For students who choose to do the entire book systematically mid-book and final examinations are included.

IMC Information

Additional teacher Information: 13 page answer book.

Commercial material: Skills for Everyday Living, Book 1 is available from Motivational Development Inc., P.O. Box 427, Bishop, CA 93514, at $2.75.

Processing: Catalog booklet into library.

3/78

PAGE 3

1) a) Route #41 b) Routes #120 and #395 c) Route #49 to Mariposa; then #140 to Yosemite where you join route #120.
2) Yosemite National Park 3) About 190 miles 4) Lee Vining
5) The 2 roads are not connected. They are separated by high mountains.

PAGE 6

1) 7 2) Rush Creek, Silver Lake, Silver Lake Trailer Park, Gull Lake, Oh Ridge, Pine Cliff Trailer Park, June Lake Beach.
3) a) 6 b) Oh Ridge c) June Lake Beach
4) a) Oh Ridge b) 100 spaces c) No d) About 1 1/2 miles
5) a) Yes b) About 6 miles
6) a) Reversed Peak b) Gull Lake and Silver Lake Campgrounds
c) About 6 miles from Gull Lake; a little further from Silver Lake.
d) About 2,273 feet
7) Silver Lake Campground 8) No 9) Gull Lake 10) June Mt.
11) June, Gull, Silver, and Grant Lakes

PAGE 8

1) a) No b) 5 hours, 48 minutes, and 46 seconds c) 6 hours
2) 4 years 3) a) 175 days. b) Summer

PAGE 9

1) 1980 2) It will not divide evenly by 4; 1986 is therefore NOT a leap year.
3) 366 days 4) a) 2000 b) Yes

PAGES 11-12

1) 30 days 2) May 21 3) October 8 4) June 18 5) Yes
6) a) 4 weeks in each month; 364 days in the year b) Tuesday c) Yes
d) Tuesday e) Yes f) The calendar year would fall more than a day behind the solar year each year. Months would gradually occur in different seasons. Adding an extra day or two to correct this periodically would then change the day of the week that dates would fall. The advantage would be lost.
7) 13 weeks and 4 days *(remember that June 4th is also a vacation day)*.
8) a) No b) July to December (the last 6 months)
9) a) 52 weeks and 1 day b) Friday c) Sunday in 1977; Monday in 1978
d) Thursday e) The same day of the week as in 1976 *(look at the calendar)*
10) November 24 11) No; there is 1 less working day in October than in August.

PAGE 13

1) 5¢ 2) 80¢ 3) $22.68

4) You can do it either way, but it is simpler to add the prices together first. The answer will be approximately the same either way, but might vary by a cent or two because of the cumulative effective of rounding off the sales tax to the nearest cent for each item. Answer to problem is "yes".

PAGES 14-15

1) a) Yes b) Yes c) No d) No
2) $24.54 (tax should have been $1.39) 3) Those answers would all be "No".

PAGES 17-18

1) 42¢ - 43¢ - 44¢ - 45¢ - 50¢ - (75¢) - $1.00
2) $3.54 - $3.55 - $3.65 - $3.75 - $4 - $5 - $10
3) 17¢ - 18¢ - 19¢ - 20¢ - 25¢ - 50¢
4) $4.28 - $4.29 - $4.30 - $4.40 - $4.50 - ($4.75) - $5.00
5) a)

2 toothpaste @ 88¢	=	$1.76
1 brush	=	1.23
6 soap @ 30¢	=	1.80
1 hairspray	=	1.79
		6.58
6% tax		.39
		6.97

b) $6.97 - $6.98 - $6.99 - $7 - $8 - $9 - $10 - $20

PAGE 19

1) a) 4 pennies, 2 dimes b) 1 penny c) 1 quarter
2) a) $5.06 b) A half dollar and a one dollar bill

PAGES 20-21

1) a) 38¢ b) 38¢ - 39¢ - 40¢ - 50¢; $3 - $4 - $5
2) a) To reduce the number of coins the customer will receive in change. First subtract the penny from $12.36 to get $12.35
b) $12.35 c) 35¢ - 40¢ - 50¢; $12 - $13 - $14 - $15
3) a) $7.35 b) $7.95 c) $8.00 d) Another nickel
e) No; you are still one dollar short.

PAGE 23

1)

1	#2 (over easy)	$2.25
2	hot cereal @ 65¢	1.30
1	side bacon (very crisp)	1.05
1	Danish roll	.50
2	coffee @ 20¢	.40
		5.50
	6% tax	.33
		$5.83

2) $5.83 - $5.84 - $5.85 - $5.95 - $6 - $7 - $8 - $9 - $10 - $20

PAGE 24

1) West to east 2) a) East to west b) Yes

PAGE 25

1) West 2) 1 PM 3) East to west

PAGES 26-27

1) 1,000 miles 2) No; it is less distance
3) a) Yes b) It would appear to stand still c) 24 hours d) standing still
4) a) 1000 miles per hour b) 24 hours c) Yes d) Yes
5) a) 12,000 miles b) Yes
6) a) 24 b) set your watch ahead 1 hour c) You will not need to change your watch.
7) Set your watch back.

PAGE 29

1) 11 PM 2) 9 AM 3) 5 PM
4) a) 6 hours b) Set it ahead 3 hours
5) a) Going west you are moving in the same direction the sun appears to move so that you have more daylight hours. Going east the reverse is true and you have fewer daylight hours.
   b) If you were traveling at the equator, you would have 1 hour less daylight going east than you would if you were going west. You would have 1/2 hour more daylight moving west at that speed than you would staying in one place. You would have 1/2 hour less daylight moving east at that same speed than staying in one place. The combined effect would be 1 hour less daylight traveling east at 500 miles a day than traveling west at 500 miles a day. Traveling across the United States would make a greater difference than that because the time lines are closer together.
   c) No. The time lines get closer together the farther north you go. The difference in the length of the day traveling 500 miles east rather than west will be much greater in Canada than in the southern U.S. and this effect will increase the farther north you go.

Skills For Everyday Living, book 1
Answers, p.4

PAGE 30

1) 8 PM 2) 8:30 AM 3) 6 PM 4) a) 8:15 PM b) 7:15 PM c) 7:15 PM

PAGE 31

1) 303 2) a) 314 b) 7 PM 3) Yes.

PAGE 33

1) a) Bishop b) Yes c) 938-5006 d) Big Pine
2) No 3) Lone Pine

PAGES 35-39

1) a) $1.36 b) $.88 c) $.54 2) More expensive on a holiday
3) No. It is more expensive after 5 PM. 4) $.77 5) No
6) a) Call between 6 and 8 AM at reduced rates. It will be after 9AM in Cleveland.
b) $.34
7) a) 3 minutes b) $1.95 c) No d) $.59
8) No 9) At the 9:30 AM rate. 10) a) No b) $1.95 c) $.22
11) a) $.31 b) $1.39 c) No. It would have cost $2.65 (you saved $1.26).

PAGE 40

1) $1.51 2) $.96 3) $3.22 4) $2.40 5) $2.45 6) $1.98

PAGE 42

1) Yes 2) Yes 3) Yes 4) $6.25 plus tax 5) 15 days
6) You may have your phone disconnected. 7) No
8) You made a person to person call during the daytime rates and had this charged to your credit card.
9) a) Return this with your payment. b) Keep it as a record.

PAGES 46-49

1) a) #4086 b) Left side; read down c) One d) 8:05 AM e) 9:15 AM
2) a) Yes b) Flag down the bus
3) You need to change buses at Goldthwaite.
4) a) 10 AM the same day b) 11 AM c) Next day at 10 AM
5) a) #4085 and #4089 b) Killeen c) 8:50 AM and 12:30 PM d) 3:20 AM
e) 3 hour and-50 minute wait before the bus leaves Killeen at 8:50 AM.
You arrive at Temple at 9:35 AM.
6) a) Leave Austin at 7:05 AM and transfer at Lampasas. b) 2 hours and 20 minutes
c) Exactly the same length of time. d) No. It does not go beyond Temple.

PAGES 46-49 (Continued)

7) a) Lampasas b) 12:15 PM c) No stops until it reaches Austin.
8) a) #4085 b) It will stop only to let passengers off the bus.
 c) One d) Yes e) Leave Abilene at 7:10 AM and change buses at Lampasas.
 f) About 12:30 PM
9) These buses operate only on Sundays and Holidays. 10) Yes
11) a) Waco b) Leave Goldthwaite at 10 AM and arrive at Dallas at 2:40 PM.
 c) 40 minutes d) Greyhound Lines

PAGE 51

1) a) 13¢ 1st class; 13¢ 3rd class b) 24¢ 1st class; 13¢ 3rd class
2) 56¢
3) a) Third class b) 58¢ including 13¢ for the letter c) No
 d) 32¢ more by 1st class
4) 9¢

PAGE 54

1) 59758 2) No 3) One
4) a) Great Falls has more than one post office (branch offices)
 b) Turn past this page to the APPENDIX TO THE STATE LIST (City listings of Montana) and look under Great Falls for the address.
5) 59401 6) 59404 7) 59405 8) 415 2nd Ave. N.; zip code = 59401
9) Addresses with different zip codes are serviced by different branches of the post office.

PAGE 57

1) Zone 6 2) Zone 5
3) Zip code 331 would then fall in zone 1 instead of zone 8. The point from which you ship is always zone 1. Other zip codes would also fall into different zones depending on the distance from the shipping point.

PAGE 58

1) a) Yes; your zip code (93564) is between 93501 and 93599. b) Zone 6
 c) $2.51 d) $5.24 e) Faster service. It will be handled faster in the sorting centers and probably will travel by air.
2) a) 59¢ more b) 96¢ more c) No d) When you are shipping a long distance and want the package delivered as soon as possible.
3) $4.25

PAGE 60

1) a) 56" b) 80" c) Yes
2) a) Yes (Lima is not a 1st class post office) b) 100"
3) a) No b) 15" *(Fold the sides down 4")*

PAGES 62-63

1) a) Special handling b) 45¢ c) No 2) No
3) a) Monday b) Saturday within about 2 hours of arrival at post office.
4) No. It is more expensive for parcel post. 5) $2.52
6) a) Special handling and special delivery b) $2.75

PAGES 65-66

1) a) Parcel post b) 25¢ c) No d) Your insurance receipt
e) No, only the replacement cost
2) a) Registered mail and special delivery b) $2.29 c) 60¢ (total of $2.89)
3) a) Certified mail with return receipt b) 60¢ (plus postage)
4) a) Parcel post b) 40¢ c) restricted delivery; 60¢
d) You can still get one but it will cost 30¢
5) No 6) No 7) No 8) Registry 9) No
10) Register it; you would only collect $10 in case of loss either way, but there is much less chance of loss by registering it.

PAGE 68

1) Yes 2) Feb. 24, 1976 3) $5
4) You cannot exchange this receipt for $5 5) 60 days
6) That person must sign his name on the back of the money order (endorse it) when he exchanges it for cash. The post office keeps this as proof of payment. This record can be traced through the serial number of your receipt.
7) Yes
8) a) None b) You should have sent a money order or check c) 30¢

PAGES 71-72

1) 0.2 deca-inches 2) a) 6.1 b) 6.4 c) 5.6 d) 5.9
3) 60 inches 4) a) 61" b) 64" c) 56" d) 59"
5) a) 84" b) 39" c) 7.5 deca-inches d) 2.1 deca-inches
6) a) 377" b) 377" c) Yes d) You should have discovered how much easier the new deca-inch tape is to use than the regular tape that measures in feet and inches.

PAGE 73

1) a) 32 tile b) 32 tile c) The new deca-inch tape
2) 13,540 inches

PAGE 74

1) a) 0.2" b) 1.1" c) 2.8" 2) a) $2\frac{13}{16}$ inches b) 2.8"

PAGE 76

1) 3500 meters 2) 3.085 kilometers 3) 0.755 meters
4) a) 0.06 meters b) 60 mm c) 580 cm d) 100,000 cm
5) 5,000 steps 6) 1.35 cm

PAGE 78

1) 500 ml 2) 50 mg 3) 7 km per liter 4) 8 trips

PAGE 79

5 cups butter = 1.2 kg
3 3/4 pints br. sugar = 1.2 kg
15 eggs = 15 eggs
5 tsp. cinnamon = 25 ml
1 1/4 tsp. salt = 5 ml
3 3/4 lbs. raisins = 600 g
3 3/4 pints nuts = 900 g
2 1/2 cups dates = 300 g
6 1/4 pints flour = 3.125 liters
5 tsp. soda = 25 ml

PAGES 81-83 (MID-BOOK EXAM)

1) Early afternoon 2) 6 PM 3) 366 days 4) $13.73
5) a) Dec. 8 b) Yes 6) Ahead 7) Evening
8) a) May has 1 working day LESS than April in 1976. If you consider May 31 as a holiday (Memorial Day), there are 2 less working days in May than April.
b) No. In 1977 May has 1 MORE working day than April. If Memorial Day (May 30) is a holiday, both months will have the same number of working days.
9) Person to person 10) Yes
11) a) 13¢ b) "letter enclosed"
12) a) First class or third class b) You would save nothing; it would still cost 13¢ either way. c) 46¢ first class; 24¢ third class
13) You will need to send it certified and ask for a return receipt. It will cost 60¢ in addition to postage (40¢ to certify and 20¢ for the receipt)
14) a) 2 pennies b) one dollar and one quarter ($1.25)
15) 5 hours and 45 minutes
16) a) No b) Registered mail c) $5.69 ($3.64 postage plus $2.05 to register it)
17) $200 18) 20 cups

PAGE 84

1) a) 5¢ per ounce b) 5.21¢ per ounce c) The one lb. box @ 80¢

PAGE 85

1) a) 26¢ b) 4 1/3¢ per oz. c) 37¢ (36.3¢) d) 3.7¢ per oz.
e) 10 oz. can is best buy f) $3.64 (You save 6¢ over buying them @ 37¢ each)

PAGES 86-87

1) $2.60 (You can buy 6 for $1.94 but must pay 33¢ apiece for the other 2)
2) You save $3.71 3) 9 oz. pkg. of garden fresh peas is less expensive per oz.
4) The 567 g size is more economical.
5) a) $1.79 for 10 lbs. b) You must also buy Gum-Off Tile Cleaner. You save the 32¢ on the cleaner . . . not on the flour.
6) a) 1/2 lb. b) 3 lbs. c) 26¢ d) 32¢ e) Oranges are less expensive.
7) a) 3/4 lb. b) 89¢ c) No
8) You save 51¢

PAGES 88-89

1) Mrs. Brown's Best Oil 2) Betsey's Stuffin 3) 4 packages
4) It is cheaper to buy them by the pound.
5) a) The 12 ounce 6 pac will cost only $1.10 after the refund. This is much less expensive than the 10 oz. no return size.
   b) No. The 12 oz. returnable bottles are still the best buy.
6) a) 3 lbs. b) about $2.40 ($2.37 exact) c) 2 lbs.
   d) about $1.80 ($1.78 exact) e) ground round

PAGES 91-92

1) ITEMS FOR 6 CAKES	COST OF INGREDIENTS	
12 cups flour	$.85	(5 lbs.)
9 cups white sugar	1.45	(5 lbs.)
3 cups brown sugar	.82	(2 lbs.)
12 cups conf. sugar	1.35	(3 lbs.)
6 tsp. baking soda	.29	(8 oz.)
6 tsp. salt	.31	(11 oz.)
3 tsp. baking powder	.45	(7 oz.)
4 1/4 cups butter	3.29	(2 1/4 lbs.)
12 eggs	.87	(1 dozen)
15 tsp. vanilla	1.29	(4 oz.)
36 oz. chocolate	5.75	(5 packages)
1 1/2 cups buttermilk	.41	(1 quart)
	$17.13	total cost

2) ITEMS FOR 6 CAKES	COST OF INGREDIENTS	
6 boxes cake mix	$4.86	
12 eggs	.87	
6 boxes frosting mix	5.70	
18 tablespoons butter	1.17	(3/4 lb.)
	$12.60	total cost

3) Had to buy more than actually needed of most ingredients.
4) The cost would be more nearly equal but the ready-mixed cakes would probably still be a little cheaper. If you bought large quantities of each ingredient and could use all of the ingredients it would then be cheaper to do it that way.
5) The ready-mix method 6) [illegible]
7) a) Either make the cakes from separate ingredients or from the ready-mixes. The ready-mix method is both cheaper and easier. b) $1.[illegible] apiece

PAGE 93

1) 481.60 2) $4.86 3) $.79 4) 6.80 5) $.18 6) $.03

PAGE 94

1) .6 2) .6 3) .03 4) .25

PAGE 96

1) .40 2) 30 3) .50 4) .51 5) .33 6) .01 (.00525)
7) .80 8) .80

PAGE 98

1) a) .75 and .80 b) .80 c) 4/5
2) 1/4 (.25); 3/8 (.38); 2/5 (.40); 7/16 (.44)

PAGE 99

1) .75 2) 13% 3) 60% 4) 20%

PAGES 100-101

1) a) 3/5 b) .6 c) .60 d) 60% e) 40%
2) a) .06 b) $1.08 c) $19.08
3) a) .20 b) $2.40 c) $9.60
4) a) $12/$16 b) .75 c) 75%
5) a) $4 b) $4/$16 c) .25 d) 25%

PAGES 102-103

1) a) Approximately $6 (will probably be priced at $5.95) b) 25%
2) About $3.60 3) Yes 4) 29% 5) $21.25
6) Yes. All cardigans are supposed to be marked down 20%. This sweater should be priced on sale at $26.00.
7) Not necessarily. $15.95 is just the least expensive sale price offered.
8) The 3 blouses were extended incorrectly; the wrong sale price was used for the cardigan sweater.

2 blouses @ $5.21	=	$10.42
3 blouses @ $6.71	=	20.13
2 shirts @ $6.26	=	12.52
1 shoes @ $27.20	=	27.20
1 sweater @ $28.00	=	28.00
		$98.27
5% tax		4.91
		$103.18

PAGE 105

1) No; leather wallets get no discount.
2)

3 shampoo @ $1.69 =	$5.07
4 skin cream @ 2/$3.39 =	6.78
4 alka belcher @ 2/78¢ =	1.56
2 deodorant @ $1.40 =	2.80
1 after shave @ $4.25 =	4.25
	$20.46
less 5% discount	1.02
	$19.44
2 wallets @ $8.95 =	17.90
	$37.34
6% tax	2.24
Total	$39.58

3) $39.58 - $39.59 - $39.60 - $39.70 - $39.75 - $40

PAGE 110

1) a) Loin b) support c) Yes; these muscles do less exercise and have less connective tissue.
2) Improves flavor and tenderness; keeps meat from drying out during cooking.
3) a) Muscles are tough and need moisture cooking to break them down. There is little fat to protect meat from drying out. There is more tough connective tissue than in loin steaks.
   b) It would taste very dry and tough. Without moisture, the muscles will get even tougher from excessive cooking.
   c) Moisture cooking
4) It is the center part of a prime rib roast called the "eye" of the roast.
5) a) New York steak b) Filet mignon
6) Chuck and round

PAGES 111-112

1) a) $1.58 b) Beef shanks are more economical
2) a) 1/4 b) 25% c) about 59¢ d) 12 oz. e) about 20¢ f) about $3.20
   g) It is more economical when you remove the meat from the Porterhouse steak yourself than to buy it as New York steak and filet.
3) The edible meat is about 33¢ a pound cheaper when you buy the roast with the bone in it than when you buy the boneless roast.

PAGE 113

1) About 600 lbs. 2) a) About 240 lbs. b) About $1.13 a pound
3) About $1.25 per pound

PAGE 114

1) $500 2) 86¢ per pound
3) a) $90 b) $605 c) 480 lbs. d) $1.26
e) You paid about 13¢ a pound more for the beef you bought at the fair. Maybe it is better quality beef than the butcher offers and maybe it isn't.

PAGE 115

1) a) $1.20 per pound b) The quality of hamburger might be better, but you are paying a lot more per pound for it. Probably not worth the price.
2) Yes 3) Yes

PAGE 117

1) The lights would dim. 2) No
3) a) You overloaded the circuit and burned out a fuse (or opened the circuit breaker).
b) Put in a new fuse or close the switch on the circuit breaker.
c) Unplug the frying pan.
d) Probably. The fuse would not burn out but the circuit wire might. It could set the house on fire.
e) Plug the frying pan into another circuit.

PAGE 119

1) 300 watts 2) .83 amperes
3) a) Yes b) About .83 amperes c) about 100 watts
4) a) 1.25 amperes b) 8 bulbs will draw just 10 amperes

PAGE 120

1) 450 watt hours 2) 1920 watt hours

PAGE 121

1) 8.1 kilowatt hours 2) a) $68.25 b) $34.13 3) $1.55

PAGE 122

1) Water heater 2) Yes 3) 3 times
4) a) $4.50 b) $1.23 5) $15
6) Clothes dryer is more expensive because it has a much higher wattage.
7) They will cost exactly the same: both use 200 watts.

PAGE 125

1) a) Both will read 0   b) 300 kwh   2) 82 kwh
3) a) Not at all   b) There are so many kilowatt hours normally used between billings that this cannot be accurately shown on just 1 or 2 dials.
4) 49 kwh

PAGE 126

1) 2579   2) 4606   3) 0237

PAGE 127

1) 2027 kwh   2) a) 600 kwh   b) 1427 kwh   c) $60.96   3) $30.48

PAGE 129

1) 60 days   2) 1663 kwh
3) a) $9.81 each month or $19.62 for the 2 month period   b) $23.81   c) Yes
4) $5.20   5) a) $48.63   b) Yes
6) Call the business office at the power company.

PAGE 131

The instructor should look over the completed form to be sure the correct information is provided.

PAGES 132-133

1) Yes   2) 10 years (40 calendar quarters)
3) a) $117   b) $895.05   c) No more
4) a) Yes   b) Yes
5) No. You must be disabled for 12 consecutive months before you can qualify.
6) $31,590
7) a) $1208.70   b) $42,660   c) $11,070
8) a) $23,692.50   b) About 6 years and 8 months (total of 80 months)

PAGES 135-136

The instructor should look over the completed form and compare with answers given for the problems on page 136.

PAGE 138

Make sure the form has been filled out correctly.

PAGE 139

1) June 5 2) $45.00 3) $262.75 4) $344.03

PAGE 141

1) March, June, September, December 2) $.0514 or about 5¢
3) a) .0475 b) $23.75 interest a year c) About $5.94 interest quarterly
4) Leave $1 in your account until the end of the quarter. This will keep your account open so that you will receive interest on your daily balance through that quarter.
5) a) Compounded daily b) It would only be about 2¢ a quarter more in interest if compounded daily instead of quarterly.
6) 5% interest compounded quarterly will pay more than 4 3/4% compounded daily.

PAGES 142-145 (FINAL EXAM)

1) Register it
2) 70 lbs.
3) Wednesday
4) 10:30 AM
5) a) 11PM to 8AM every day. Anytime Saturday. 8AM to 5PM Sunday.
   b) There is no saving. The first 3 minutes of a collect call cost the same regardless of when the call is placed.
6) 1,000,000 (1 million milligrams)
7) a) 120 volts b) .83 amperes
8) Up to 1200 watts
9) 87¢
10) The brand selling for $1.19 a pound
11) a) .015 b) $.375 or 38¢
12) 40% profit
13) a) $16.10 b) $16.58
14) a) Chuck b) It should be less expensive than the standing rib roast.
15) Loin steak should be more tender because these are muscles of support and do less exercise. They also have less connective tissue and more fat.
16) 10 hours
17) a) No. The hair dryer has a higher wattage and will cost more to operate.
   b) 5 1/2 times more expensive to use the iron.
18) $11.70
19) a) Must have earned at least $50 in each of 40 calendar quarters.
   b) No c) Payments are based on average yearly earnings.
20) About $103.80 total. You would be paid interust for 3 quarters only. 5¢ of this amount results from compounding the interest quarterly.
21) a) Yes b) 25% c) 75%

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Skills for Everyday Living (Blue Book)

This booklet contains a wide range of project-type problems similar to those you will face in everyday living at home, at work, and in your community. Each project requires the use of certain basic math skills. Some require no more than basic addition or subtraction. A few require that you understand decimal fractions and percent. Do not attempt those particular problems unless you have some knowledge of these skills. A review of these skills are included in the booklet. With your teacher or MGM resource aide look over the list of kinds of problems and select those you wish to do. Write these on the front of your contract. DO NOT write in the booklet itself. DO write all of your answers on lined paper numbering them carefully. These are FUN PROBLEMS!

Materials you will need are

**a copy of this contract...Take one from the ICES file.

**a copy of the booklet Skills for Everyday Living (Blue Book)...You will find it in the Media Resource Center with the call number 640.73-W.

**lined paper.

**pencil.

The work you turn in will be your answers to the subject problems you have listed here:

________________ ________________

________________ ________________

________________ ________________

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH

Skills for Everyday Living (Blue Book)

Teacher Information

Grades 5-6; for one student.

Time: 2-3 periods per subject.

Assignment: With the student look over the subjects contained in the booklet. Help him select those you feel are appropriate. For those areas which require it, be sure the student has some knowledge of decimal fractions and percent even though the booklet contains a review of these. This study provides students with excellent examples of the relevance of mathematics to a variety of subject areas. Problems for each subject area should be completely corrected before allowing the student to move on to a new area.

Subject Areas Included

- Sales Slips
- Mileage Charts
- Using a Road Map
- Rolls of Change
- Reading a Thermometer
- Enlarging a Recipe
- Ordering by Mail
- Working With Areas
- Board Feet of Lumber
- Bargain Shopping
- Grocery Ads
- Paying Bills
- Credit Cards
- Checking Accounts
  - Writing Checks
  - Endorsing Checks
  - Exchanging Checks for Cash
  - Check Stubs
  - Deposit Slips
  - Bank Statements
  - Reconciling Bank Statement
- Deductions From Earnings
- Buying a Used Car
- Budgeting for the Car
- Living Within Your Income
- Paying Federal Income Tax

IMC Information

Additional teacher information: 13 page answer book.

Commercial material: Skills for Everyday Living (Blue Book) is available from Motivational Development Inc., P.O. Box 427, Bishop, CA 93514, at $1.75.

Processing: Catalog booklet into library.

5/78

PAGE 3

1) Yes 2) Yes 3) No; two orders of french fries are only 60¢ when ordered with sandwiches; two pies are only $1.10; items on the bill were also added incorrectly. 4) $4.75 5) 29¢; figuring tax this way you will be within one cent of the amount shown on a sales tax chart.

PAGE 4

1) This should be the same as your answer on page 3 (29¢). 2) $5.04
3) One penny, 2 dimes, 3 quarters, and 4 one dollar bills.
4) a) 76¢ b) $1.33 c) 4¢ d) $2.13 (add together the tax for $25 and for $10.50) 5) See your instructor

PAGE 5

1) 96 miles 2) 1,412 miles 3) about 282 miles
4) 99 miles further by way of Reno.

PAGE 6

1) A suggested possibility . . .
Follow route #133 north about 10 miles. Turn left on #5 (north or west).
Go 8 miles on #5. Turn right on #55 (north).
Go 8 miles on #55. Turn left on #91 (west).
Go 3 miles on #91. Turn right on # 57 (north).
Go 18 miles on #57 to its end. Turn left on #30 (west).
Go 5 miles on #30. Turn right on #39 to Azusa (north).

2) About 53 miles 3) 8:15 at the latest

PAGE 8

1) A suggested possibility . . .
Follow route #88 toward Stockton.
In 5 miles this joins #99. Turn left (south).
Go 2 miles on #99. Turn right on #26 (west).
Go 3.5 miles (route changes to #4). Turn left on #5 (south)
Go 4 miles on #5. Turn right on Mathews Road (west) at French Camp off-ramp.
Go 3 miles to end of road. Road jogs left at 1.5 miles
Our house is straight ahead from end of road.

PAGE 9

1) a) 50 b) 40 c) 50 d) 40 2) 30 3) a) 10 b) 5 c) 4 d) 3
4) $77

Skills for Everyday Living (Blue Book)
Answers, p.2

PAGE 11

1) 56 degrees C. (Centigrade) 2) 56 degrees C. 3) 41° C. (° means degree)
4) a) 21° C. b) 70°F. 5) 180°F. 6) 18°F. 7) 1.8°F. 8) -12° C.

PAGE 12

1) a) 38°F. b) 24°F. c) 0°F. d) -10°F. e) 16°F. f) 40°F.
2) -18° C. 3) Yes . . . by 32 Fahrenheit degrees.

PAGE 13

3 pints flour
2 tablespoons soda
2 tablespoons salt
1 tablespoon cinnamon
4 1/2 teaspoons mace
1 1/2 teaspoons nutmeg
4 1/2 pints raisins
3 quarts currants
1 1/2 cups citron
1 pint lemon peel
3 cups walnuts
4 1/2 pints bread crumbs
2 pints brown sugar
1 dozen eggs
4 1/2 cups fruit juices

PAGE 14

1) Black wall 2) Sears Crusader; $18.16 3) Silent Guard 78
4) a) It's not that simple. You must consider both cost and mileage guarantee.
b) Cost of the tire per mile of guarantee.
c) Dynaply 18 Polyester, black wall tire.
5) Yes 6) 84 lbs. 7) $5.14 8) No 9) The Silent Guard 78, for example, has wider tread for better highway traction and safety. Deeper tread gives better traction and more shock protection from bumps or rocks during early life of the tire before the tread wears down.

PAGE 17

(Your Name and Address)

Dear Sir,

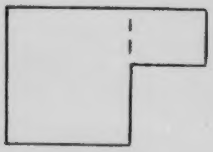
Please ship the following items to the above address. Enclosed is a check in the amount of $103.32.

4 Dynaply 18 Polyester black wall tires #95H23765C @ $21.41 . . .	$85.64
4 valves #95H98716 @ $1.00	4.00
	89.64
6% tax	5.38
shipping (84 lbs. 4 oz.)	8.30
Total	$103.32

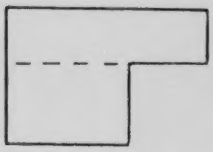
(Your Signature)

PAGE 18

1) No; it has only 3 sides 2) No; all 4 angles are not equal
3) No; it has more than 4 sides 4) a)



b)



PAGE 19

1) 8 square inches 2) 4" long; 2" wide 3) a) 8 b) Yes
4) a) Add up the number of square units it contains . . . or, multiply the length times the width. b) Multiplying length times width.
5) 30 square cm. 6) 7 square feet.

PAGE 20

1) 30 square cm. 2) a) 10 ft. and 6 ft. b) three; Yes c) 504 square ft.
d) Yes 3) a) 3 b) 9

PAGE 22

(Your Name and Address)

Dear Sir,

Please ship the following freight collect to the above address. Enclosed is a check in the amount of $220.19.

20 feet of nylon shag pile carpet in 12 foot width,
mildew green color @ $7.79 per square yard $207.73
(26 2/3 square yards)
6% tax . . 12.46
Total $220.19

(Your Signature)

1) Yes; 6 ft. by 4 ft. 2) $113.07 3) $1.02 per square ft. including tax.
4) $22.02 including tax (exactly 1/10 of the total cost).
5) Tile is cheaper; saving would be $171.35 except for unusable cut pieces of tile.

PAGE 23

1) a) 28¢ b) $7 2) $4.50 3) 1/2 board foot 4) 3 board feet
5) 1 1/2 board feet 6) 24 board feet

PAGE 24

1) a) 3 board feet b) 1 board foot c) 4 board feet d) 1 1/3 board feet
2) 21 1/3 board feet 3) a) 8 board feet b) $2.24 c) $56
4) 2x4 boards: $83.20; 2x8 boards: $63.84; 4x10 board: $20.67; plywood: $87.04

PAGE 26

1) a) Men's sportshirts b) up to 50% 2) a) 28% b) No, only those selling for $25. 3) $13.27 4) $6 *Note:* $80\% \times N = \$24$
$N = \$24 \div .80$
$N = \$30$
$\$30 - \$24 = \$6$ *saving*

5) Yes, Mastercharge and Bankamericard

PAGE 27

1) Alpine Hut 2) $2.50; it will cost $83 at Mel's and $80.50 at Alpine Hut.
3) It will cost $125 at Mel's. This is $4.50 less than at the Alpine Hut.

PAGE 28

1) a) $52.00 b) $156.00 c) none 2) a) $192.40 b) 7.5% c) $48.10
3) a) No b) Yes 4) You don't know . . . probably not.

PAGE 29

1) No; it is 12" along the diagonal 2) Don't know; don't know
3) Don't know 4) Don't know 5) Don't know 6) Don't know
7) Don't know 8) No. If it were a real bargain, Ben would be anxious to give the facts.

PAGE 30

	MAIRS'	JOSEPH'S
Apples	$1.90	$2.00
Orange Juice	2.67	2.70
Potatoes	2.37	4.14
Onions	.57	.50
Lettuce	.53	.87
Eggs	1.30	1.26
Bacon	2.37	3.39
Spare Ribs	2.18	1.96
Short Ribs	4.25	2.95
Coffee	2.99	2.89
Oranges	.85	1.25
Weiners	2.76	2.91
	$24.74	$26.82

NOTE: Packages of Mairs' weiners are only 12 ounces and not a pound.

1) Mairs' Market; $2.08 2) $1.73 3) about 7% saving 4) about $14

PAGE 33

1) No. Your identification does not tell if you have money in your checking account. If your check bounces, the bank may not be able to locate you again.
2) Ask the bank to phone your bank and make arrangements to guarantee that the check will be paid. Money will probably be set aside in your account to pay this check when it arrives in the mail.
3) a) They may want to be sure your check clears first . . . that it doesn't bounce.
   b) Yes; if your check bounces, the mail order company is responsible for returning that money to the bank. It is only loaned to them until the check clears.
4) No. You could not prove you were Donald Yfrkb. If you endorsed the check by signing his name, you would be breaking a serious law. Hand writing experts could probably identify you and you would be prosecuted.
5) None

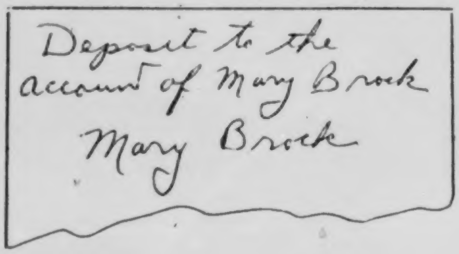
PAGE 37

1) Fred Slick 2) 08-81370-3-05 3) Cottontail, Wn.
4) Yes. The bank can quickly determine if there is $18.25 in Fred Slick's account. Another bank might require waiting until the check had cleared through the mail.
5) Yes. He would have to repay that money to the bank.

6) a) $\$100\,\frac{\text{no}}{100}$; one hundred and $\frac{\text{no}}{100}$ DOLLARS
   b) $\$2{,}060\,\frac{25}{100}$; two thousand sixty and $\frac{25}{100}$ DOLLARS
   c) $\$\,\frac{75}{100}$; no dollars and $\frac{75}{100}$ DOLLARS
   d) $\$87\,\frac{01}{100}$; eighty seven and $\frac{01}{100}$ DOLLARS
   e) $\$1{,}111\,\frac{11}{100}$; one thousand one hundred eleven and $\frac{11}{100}$ DOLLARS

PAGE 40

1) Sally Smirk 2) He endorsed the check with his signature below instructions that the $10 be paid to Jim Boyd. Donald Baker can no longer cash the check for $10. 3) Bank of America. This is the bank where Sally Smirk has her checking account. If the money is available in her account, Jim Boyd can be paid immediately if he has identification.
4)



Deposit to the
account of Mary Brock
Mary Brock

PAGE 41

1) Pay to the order of
Rusty's Record Shop
(your signature)

2) No. Rusty may ask your friend to endorse it even though not required. This proves who received the money from Rusty.

3) Yes. If Rusty has the person endorse the check and show identification, however, you will at least know who got the money. You will have to try to get your money back from that person and not Rusty. This might be difficult.

4) Pay to the order of
Rusty's Record Shop
(your signature)
Deposit to the account
of Rusty's Record Shop
(Rusty's signature)

5) $3.83

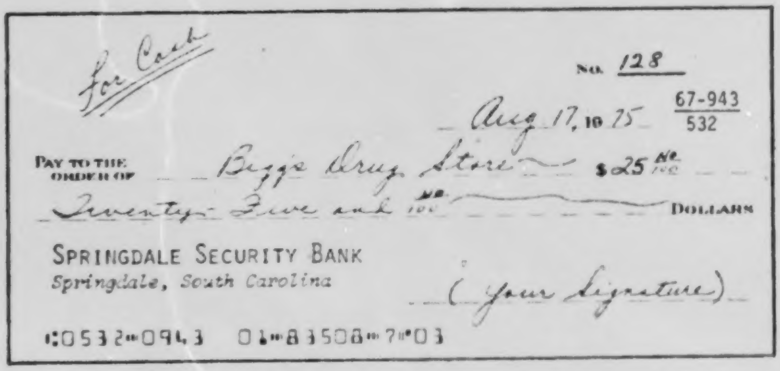
6) Yes

PAGE 43

1) No. He should go where YOU are well known. They are interested in YOUR checking and not that of your friend. If you are well known to the store, your check will probably be cashed. If it bounces, they presume you will make it good . . . at least they know where to find you.

2) Deposit to the account
of Tom's Grocery Store

3)



For Cash

No. 128

Aug 17, 19 75

67-943
532

PAY TO THE ORDER OF Biggs Drug Store $25 no/100

Twenty-Five and no/100 DOLLARS

SPRINGDALE SECURITY BANK
Springdale, South Carolina

(your signature)

⑆0532⑈0943 01⑈83508⑈7⑈03

If the check is stolen you should call Bigg's Store immediately and tell them not to cash the check if someone brings it in. This is the only place that check can be cashed.

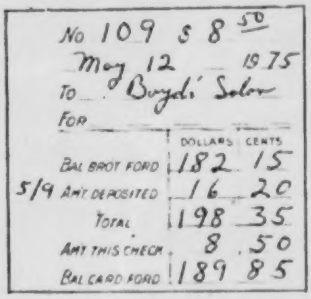
PAGE 44

1) No. Anyone who found this could fill in any amount he wanted. He would have to find a store owner willing to cash it, however, who would presumably know you. Your best hope would be that the store owner would ask him to endorse the check and show identification. You would then know whom to look for.
2) Yes. You have not signed the check. If someone else signs YOUR name it will be a forgery. Whoever cashes the check will be out the money. It will not come out of your checking account.
3) No. The check can be completed by another person for "CASH" and in any amount. If he can find someone to cash it who does not require identification or an endorsement, you will be out the money and not know who got it.
4) No. This is safer than having the check made out to "CASH". Although it can be completed for any amount of money, it MUST be cashed at Sam's. As soon as you lose the check you should phone Sam and tell him not to cash that check. If Sam has already cashed the check there is not much you can do. You can "STOP PAYMENT" on the check by signing a form at the bank (see page 45). You legally owe that money to Sam, however, and eventually will have to pay him.

PAGE 46

1) $198.35

2)



No 109 $ 8 50
May 12 1975
To Boyds' Salon
For

		DOLLARS	CENTS
	Bal brot ford	182	15
5/9	Amt deposited	16	20
	Total	198	35
	Amt this check	8	50
	Bal car'd ford	189	85

3) $189.85

4) Yes

PAGE 47

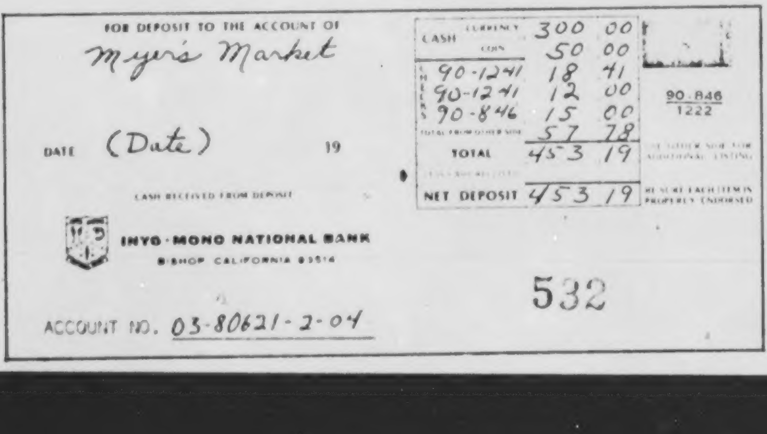
1) Go over this with your instructor. Your balance forward at the bottom of each stub should be . . .

#68	$326.74
#69	403.76
#70	378.76

PAGE 48

1) 90-846
2) Yes. The check for $6.30 has the same ABA number.
3) 03-16830-3-00
4) $36.90
5) Probably not. He should have noticed this when the cash was counted by the teller. Since the teller agreed with his deposit slip, there is little evidence to support his claim.

PAGE 49



FOR DEPOSIT TO THE ACCOUNT OF
Myer's Market

DATE (Date) 19

CASH RECEIVED FROM DEPOSIT

INYO-MONO NATIONAL BANK
BISHOP CALIFORNIA 93514

ACCOUNT NO. 03-80621-2-04

CASH	CURRENCY	300	00
	COIN	50	00
CHECKS	90-1241	18	41
	90-1241	12	00
	90-846	15	00
TOTAL FROM OTHER SIDE		57	78
TOTAL		453	19
NET DEPOSIT		453	19

90-846
1222

USE OTHER SIDE FOR ADDITIONAL LISTING

BE SURE EACH ITEM IS PROPERLY ENDORSED

NOTE: Two checks are listed on the back side.

Skills for Everyday Living (Blue Book)
Answers, p.8

PAGE 50

The 1st, 2nd, and 4th checks on the page will have as their only endorsement: "DEPOSIT TO THE ACCOUNT OF MYER'S MARKET". Most businesses have a rubber stamp for endorsing checks to be deposited in their business accounts. A signature is not normally required when this stamp is used.

The 3rd check will be endorsed:

Fred Black
Deposit to account of
Myer's Market
(signature optional)

The 5th check will be endorsed:

Thomas F. Simmons
Deposit to account of
Myer's Market
(signature optional)

PAGE 52

1) Three; May 9, May 16, and May 28 2) $1.50 3) $54.30
4) $161.70 (shown in upper part of statement under "TOTAL DEBITS".
5) The statement was mailed May 30 before the deposit was received by the bank. This deposit will appear on the June statement.
6) Probably not. The mail order company was probably just slow in depositing the check. It will likely appear on next month's statement.
7) $544.50. Yes. Any outstanding checks, such as the one to the mail order company, that might arrive at the bank for payment would be returned unpaid. Mr. Harris would be responsible for making these debts good. His credit rating might be damaged by having these checks returned unpaid.

PAGE 55

	CHECK STUB BALANCE	BALANCE IN BANK
Feb 3	$100	$100
Feb 6	70	100
Feb 8	60	100
Feb 9	60	90
Feb 9	80	110
Feb 10	50	110
Feb 10	30	110
Feb 12	30	110
Feb 18	30	90
Feb 18	30	60
Feb 22	30	60
Feb 25	70	100
Feb 27	60	90
Feb 28	60	88
Mar 1	70	98
Mar 1	70	68
Mar 2	45	68

PAGE 57

1) a) It should agree 2) a) Yes; three deposits b) Yes; one
c) March 1 d) Deposit was made after statement had been mailed.
e) Find your copy of that deposit slip and take it to the bank.
3) a) Yes b) see page 58 in text
4) a) No b) Yes c) Go over everything carefully. If the entry still does not look correct, go to the bank and ask.
d) No. There are checks written that have not been cashed at the bank. There was also a deposit made after the statement had been mailed to you.
e) Add to the final balance in your checkbook the value of all uncashed checks. Subtract all deposits not recorded on the statement. This adjusted balance in your check book should now agree with the final balance on the statement.

PAGE 58

4) f) If you had made an arithmetic error on your check stubs or if the bank had made an arithmetic error, the two balances would not agree at this point. The fact that they do agree indicates your running balance is correct.
g) There is probably an arithmetic error in your check stubs or possibly an uncashed check you have not identified. Start at the time you reconciled your last statement and go through the arithmetic on each check stub. If you cannot find the problem, take your records to the bank for help.

PAGE 60

1) July 2 2) $298.77 (Some companies do not allow a discount on shipping costs).
3) $309.44. You will be expected to pay 1 1/2% interest. 4) #12207

PAGE 61

1) #1803 and #1854 2) Yes; #1937 3) $56.36
4) a) $57.46 b) There will be an interest charge of 1 1/2% on $56.32 (84¢). This will be added to the July 1 balance due of $56.62.

PAGES 63 and 64

1) a) Yes b) $121.58 c) In the space labeled PURCHASES
2) a) Yes. Copies of your sales slips might not arrive at Master Charge in time to be listed on the statement. b) Add up the amounts on your copies of sales slips that have not been listed yet on a statement.
3) The PREVIOUS BALANCE 4) a) $50 b) $1.12 c) $75. This is the average daily balance for the 30 days between statements. The balance from June 16 to June 30 (15 days) was $100. A $50 payment was made July 1. The balance for the remaining 15 days of the month was then $50. The average balance was therefore $75. The monthly rate of 1.5% is multiplied times $75.
5) Add to the PREVIOUS BALANCE the new PURCHASES and the FINANCE CHARGE. Then subtract the $50 payment made. This will give the NEW BALANCE.
6) No. Unless the full amount is paid, there are no interest free days.
7) $10 is the minimum amount you can pay a month and continue to charge purchases to your account. 8) $172.70; August 9, 1975 9) $500
10) a) $327.30 as shown in the box labeled CREDIT AVAILABLE. b) You may have already made purchases that do not yet show on your statement. When these are listed, your available credit will be less. The only accurate way to know your available credit at any time is to keep a record of all your purchases.

Skills for Everyday Living (Blue Book)
Answers, p.10

PAGE 65

1) a) $815.00 b) No c) Yes. You are expected to pay 7.9% of that for Social Security ($64.38). d) An accountant or an agent of the Internal Revenue Service. e) Yes. You are taxed on your net income and these deductions make your net income smaller.

PAGE 66

1) a) $14.04 b) $223.56 2) $351.00 3) Yes, if you work 46 weeks or more.
4) a) 232 hours b) 11 weeks and 3 days c) 3.3 days

PAGE 67

1) $2.12 2) 6 weeks and 11 hours (almost 7 weeks) 3) 27 weeks
4) About the 20th of November for the down payment. Middle of April to pay the full amount.

PAGE 68

1) $110 2) $60 each 3) May 1 4) 6 months
5) 52 hours (almost 4 weeks) 6) No 7) Yes 8) Feb 1 at the earliest

PAGE 73

1) $48 sales tax 2) $250 3) Cost of transfering the registration to the new registered owner. Cost of this is $3.00
4) a) Yes b) Yes 5) a) $30.00 b) $280.00
6) The total amount you will be paying for the car and other items included in the contract. This is the total of the down payment and all monthly payments.
7) $108.08 8) $84.09 9) $144.09

PAGE 74

10) March 1; 12 payments 11) First 12) a) A 5% charge will be added to that payment. b) $88.29 13) a) $901.00 b) 12%
14) 21.46% 15) You would save $358.08. 16) Notify GMAC before the payment is due. Some plan can probably be worked out.

PAGE 76

1) Yes 2) a) The car dealer is paid for the car by GMAC. GMAC receives the contract in exchange for this as well as all rights granted by that contract to the seller. b) GMAC c) GMAC d) GMAC
3) After the final payment to GMAC.
4) No. He has already been paid for the car and is no longer concerned. You will have to see GMAC.
5) a) Yes. You must pay the 5% late charges as well as attorney's fees and legal expenses that were necessary to collect the payment.
b) Yes. You may have trouble financing anything in the future or borrowing money from a bank.
6) No. There will be a partial refund.

(Finance Company may be stated instead of GMAC)

PAGE 78

7) a) Demand may be made for the immediate payment of the entire balance due.
b) The car may be repossessed. 8) No 9) YOU are. 10) No
11) No. The finance company has the choice.
12) a) It is YOUR responsibility to see payments are made. b) Yes
c) No. Your payments are made to GMAC. They want the money . . not a smashed car.
13) a) No. It is still your responsibility until arrangements have been made to change this through GMAC.
b) GMAC would come to YOU for payments and not to him.
c) Notify GMAC and ask them to make the necessary arrangements for you. They will need to approve the credit rating of the new buyer and probably write a new contract with him.

PAGE 79

1) About $29 to $30 a month 2) About 6 times a month or every 5 days.
3) a) $60 b) 3 months

PAGE 80

1) This will depend on your age. If you are of legal adult age you may sign as buyer. Determine what legal age is in your state.
2) It certainly would. 3) Late in May 4) You decide
5) a) 6 months after you make the down payment b) Yes c) It will cost considerably more. 6) No

PAGE 81

		INCOME	EXPENSES	BALANCE
				$510 (About)
Feb 1	Car down payment		$200	310
Feb 1	Insurance down payment		110	200
	Gasoline costs for Feb.		30	170
Mar 1	Pay check	$118.72		288.72
Mar 1	Car payment		84.09	204.63
Mar 15	Insurance payment		60.00	144.63
	Gasoline costs for Mar.		30.00	114.63
Apr 1	Pay check	131.44		246.07
Apr 1	Car payment		84.09	161.98
Apr 15	Insurance payment		60.00	101.98
	Gasoline costs for April		30.00	71.98
May 1	Pay check	127.20		199.18
May 1	Car payment		84.09	115.09
May 15	Insurance payment		60.00	55.09
	Gasoline for May		30.00	25.09
	Lube job		15.00	10.09
Jun 1	Worked 28 extra hours in May	190.80		200.89

Only by working most of the extra hours allowed in May and June will you be able to meet the payments and still buy gas. Even after your last insurance payment in July you will not have enough money left over for anything else without continuing to work extra hours or buying less gas. It would be best to wait until March 1 to make the down payment on the car.

Skills for Everyday Living (Blue Book)
Answers, p.12

PAGE 82

1) $217.00   2) $157.00

PAGE 83

1) $691.00. Remember that this includes the $50 down payment on the washer-dryer. $20 payments on this start in August.
2) $226.00   3) $9

PAGE 85

1) May   2-3) See your budget chart   4) No
5) The husband may have to get an additional part-time job. Presume the husband is getting $500 take home pay a month on his regular job and the wife is getting $200.

PAGE 88

1) About $2,255   2) Yes   3) It is YOUR responsibility and not that of your employer.
4) a) Yes. The money has already been mailed to the government to pay your estimated tax. You will need to fill out the tax forms to get a refund.
b) Yes   5) No   6) Yes   7) Yes

PAGE 91

1) a) $195.60   b) You mail this copy of the W-2 Form with your tax forms.
2) About 13%. As you earn more money, a larger percentage will go for taxes.

PAGE 94

1) You do not need to send in any more tax. You will get a refund of $86.60
2) The 1040 Form and the W-2 Form. If you had owed more tax you would have to include a check for that amount. Mail this by April 15.
3) No. They did not exceed $1300.   4) Yes

(SEE THE COMPLETED 1040 FORM ON THE NEXT PAGE)

Skills for Everyday Living (Blue Book)
Answers, p.13

Form **1040** US **Department of the Treasury—Internal Revenue Service**
Individual Income Tax Return
1974

For the year January 1–December 31, 1974, or other taxable year beginning .... 1974, ending ...., 19.......

Please print or type

Name (If joint return, give first names and initials of both) (Your Name)
Last name (Your Last Name)
Present home address (Number and street, including apartment number, or rural route) (Your Address)
City, town or post office, State and ZIP code
COUNTY OF RESIDENCE (Your County)
Your social security number
Spouse's social security no.
Occupation Yours ►
Spouse's ►

Filing Status (check only one)

1 ☒ Single
2 ☐ Married filing joint return (even if only one had income)
3 ☐ Married filing separately. If spouse is also filing give spouse's social security number in designated space above and enter full name here ►
4 ☐ Unmarried Head of Household (See instructions on page 5) ►
5 ☐ Widow(er) with dependent child (Year spouse died ► 19)

Exemptions Regular / 65 or over / Blind

6a Yourself . . . ☒ ☐ ☐
b Spouse . . . ☐ ☐ ☐
Enter number of boxes checked ► 1
c First names of your dependent children who lived with you
Enter number ►
d Number of other dependents (from line 27) . . . ►
7 Total exemptions claimed . . . . ► 1

8 **Presidential Election Campaign Fund** . . ► Do you wish to designate $1 of your taxes for this fund? . . X Yes ☐ No
If joint return, does your spouse wish to designate $1? . . ☐ Yes ☐ No
Note: If you check the "Yes" box(es) it will not increase your tax or reduce your refund.

Please attach Copy B of Forms W-2 here

Income

9	Wages, salaries, tips, and other employee compensation (Attach Forms W-2. If unavailable, see instructions on page 3.)	9	2,670	00
10a	Dividends (See instructions on pages 6 and 13) $ 184.20, 10b Less exclusion $ 100, Balance ► *(If gross dividends and other distributions are over $400, list in Part I of Schedule B.)*	10c	84	20
11	Interest income. [If $400 or less, enter total without listing in Schedule B / If over $400, enter total and list in Part II of Schedule B]	11	46	25
12	Income other than wages, dividends, and interest (from line 38)	12		
13	Total (add lines 9, 10c, 11, and 12)	13	2,800	45
14	Adjustments to income (such as "sick pay," moving expenses, etc. from line 43)	14		
15	Subtract line 14 from line 13 (adjusted gross income)	15	2,800	45

- **If you do not itemize deductions and line 15 is under $10,000, find tax in Tables and enter on line 16.**
- **If you itemize deductions or line 15 is $10,000 or more, go to line 44 to figure tax.**
- CAUTION. If you have unearned income and can be claimed as a dependent on your parent's return, check here ► ☐ and see instructions on page 7.

Tax, Payments and Credits

16	Tax, check if from: ☒ Tax Tables 1-12 ☐ Tax Rate Schedule X, Y, or Z ☐ Schedule D ☐ Schedule G OR ☐ Form 4726			16	109	00
17	Total credits (from line 54)			17		
18	Income tax (subtract line 17 from line 16)			18	109	00
19	Other taxes (from line 61)			19		
20	Total (add lines 18 and 19)			20	109	00
21a	Total Federal income tax withheld (attach Forms W-2 or W-2P to front)	21a	195 60			
b	1974 estimated tax payments (include amount allowed as credit from 1973 return)	b				
c	Amount paid with Form 4868, Application for Automatic Extension of Time to File U.S. Individual Income Tax Return	c				
d	Other payments (from line 65)	d				
22	Total (add lines 21a, b, c, and d)			22	195	60

Pay amount on line 23 in full with this return. Write social security number on check or money order and make payable to Internal Revenue Service.

Please attach Check or Money Order here

Balance Due or Refund

23	If line 20 is larger than line 22, enter **BALANCE DUE IRS** ► (Check here ► ☐, if Form 2210, Form 2210F, or statement is attached. See instructions on page 7.)	23		
24	If line 22 is larger than line 20, enter amount **OVERPAID** ►	24	86	60
25	Amount of line 24 to be **REFUNDED TO YOU** ►	25	86	60
26	Amount of line 24 to be credited on 1975 estimated tax ►	26		

If all of overpayment (line 24) is to be refunded (line 25), make no entry on line 26.

Sign here

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief it is true, correct, and complete. Declaration of preparer (other than taxpayer) is based on all information of which he has any knowledge.

► (Be Sure To Sign Here)
Your signature Date
► Preparer's signature (other than taxpayer) Date
► Spouse's signature (if filing jointly, BOTH must sign even if only one had income)
Address (and ZIP Code) Preparer's Emp. Ident. or Soc. Sec. No.

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Soma Cubes.

Do the cards in order. Keep going unless the cards get too hard for you. If that happens, mark down the number of the last card you have solved and see your teacher.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a set of Soma Cubes. The set is kept in the Media Resource Center.

**the Soma Cubes Task Cards. You will find them in the Media Resource Center under the call number KS 793.7-S.

**construction paper, writing paper, pencil, scissors, tape.

The work you turn in will be

(1) a Soma answer sheet, on which you will write the answers to the questions on the cards.

(2) Be ready to show your teacher how you make the figures.

(3) Paper cubes you make as directed on cards C-1 and D-1 should be shown to a teacher. Be ready to make a shape with your paper cubes and tell the area of each face and the volume of the shape you make.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Soma Cubes

Teacher Information

Grades 4-6; one student

Time: 6 to 12 periods

Assignment: Assign the entire set as one unit.

IMC Information

Additional teacher information: Answers (one side)

Commercial material: The cards and cubes are available from Selective Educational Equipment, Inc., 3 Bridge Street, Newton, MA 02195 at $1.85 and $3.50, respectively.

Processing: Catalog the card set into the library. Send soma cubes to library uncataloged, but with pocket, blue checkout card and copy number.

8/75

Answers to Questions

Card	Question	Answer
A-1	1	7 individual pieces
	2	no written response
A-2	1-3	no written response
A-3	1	no written response
	2-3	answers vary
B-1	1	no written response
	2	answers vary
B-2	1	no written response
	2	there are 10 faces: 4 are 3 square units each 2 are 6 square units each 2 are 9 square units each 1 is 15 square units each 1 is 21 square units each
B-3	1	no written response
	2	answers vary
B-4	1	no written response
	2	27 cubic units
	3	answers vary
B-5	1	no written response
	2	answers vary
	3	Each shape is 27 cubic units.
B-6	The student may describe the surface and/or volume of each shape.	

	First	Second	Third
No. faces	29 (34)*	14 (26)*	20
surface area (square units)	90	66	78
Volume (cubic units)	27	27	27

*One could argue whether pieces that touch only at corners are the same face. If not, answers in parentheses are acceptable.

Card	Question	Answer
C-1		no written response
D-1		answers vary
D-2		no written response

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Supercube.

The cards in Supercube are in no particular order; you may choose whichever one you want to do first. Sometimes two or three cards go together. You can tell from the student record sheet which cards go together. Color in the numbers for cards you do on the student record sheet. If you do this study more than one time, use the same record sheet.

☐ Do ______ cards.
☐ Work for ______ periods.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **your student record sheet...Take one from the ICES file.
- **Supercube...You will find the kit in the Media Resource Center under the call number KS-510-S.
- **pencil and paper
- **other supplies if needed...Be sure you will be able to get all the supplies you need before you start to work on a project.

The work you turn in will be whatever the card tells you to do. Sometimes it will be written work, sometimes an object you have made, sometimes a demonstration you can give to your teacher or to the class. Use your own good sense to decide what you can show that will best get across what you have learned from your project.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Supercube

Teacher Information

Grades 4-6; one or two students

Time: one to several periods for each project

Assignment: Indicate to the student how many projects you want him to undertake, or how many periods you want him to work, before he checks with you. There are 64 cards containing activities (however, several of these are in two-card sequences which are to be done together) and 12 Mind Bender cards. The latter are puzzles and games which may be played more than once, some for one and some for two pupils. Parts of some activities are problems for which answers are given, but all end with open-ended activites. Many involve making and manipulating constructions. This study may be assigned a number of times, until all cards have been completed.

IMC Information

Consumable: student record sheet (one side)

Commerical Material: The kit is available from Harcourt Brace Jovanovich, 757 Third Avenue, New York, NY 10017 at $75.00

Processing: Remove the card "to the teacher" and process for the library.

3/75

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Tangranimals

You will use a set of tangrams to do animal puzzles called Tangranimals. When you have solved each "Tangranimal," you will trace around each tangram piece on a sheet of paper so that you will have a record of how you solved your "Tangranimal" puzzle.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Tangranimal puzzle pages...Take them from the ICES file one at a time as you work on them.
- **pencil and paper to record your solutions.
- **a set of tangrams...You will find them in the ICES file.

The work you turn in will be your solutions (tracings) to the Tangranimal puzzles.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Tangranimals

Teacher Information

Grades 1-3; for one student.

Time: 3-6 periods.

IMC Information

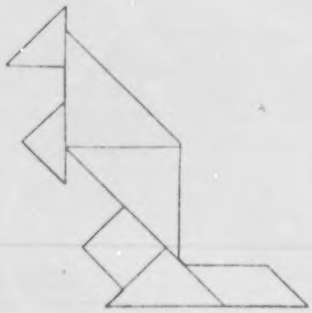
Additional Teacher Information: solutions immediately following this page.

Commercial material: Tangranimal booklet from Prentice-Hall Learning Systems Inc., P.O. Box 47X, Englewood Cliffs, NJ 07632, at $4.95. Also available from Warren's Educational Supplies, 1000 Detroit Ave., Concord, CA 94518 at the same price.

Processing: Remove all pages from booklet. Place pages 7-55 in plastic sleeves. Puzzle pages will be filed in the ICES file at each school appropriately labeled in a manila envelope. Xerox solution pages 56-61. These are to follow the teacher's sheet.

4/78

SOLUTIONS



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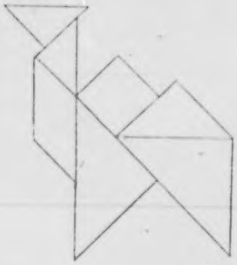

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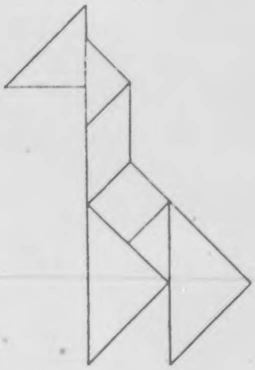

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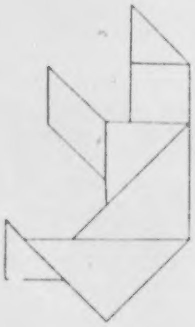

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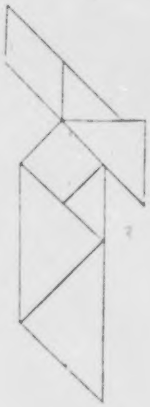

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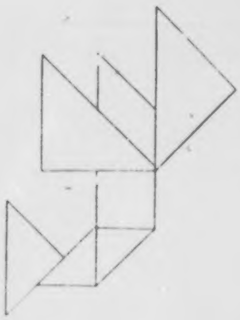
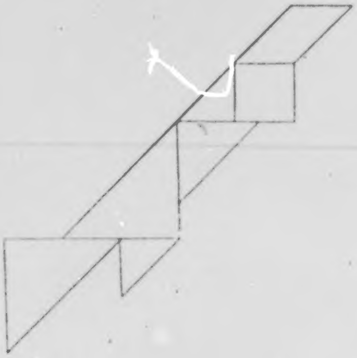


12



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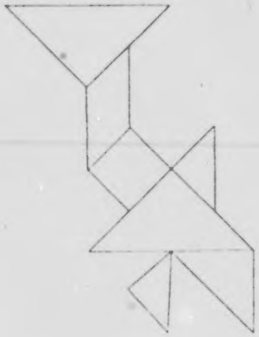
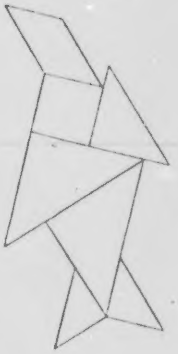
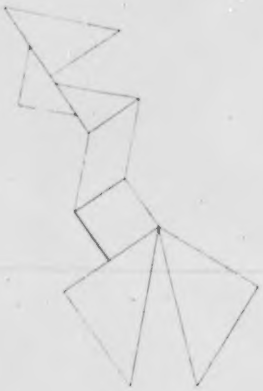


14



15



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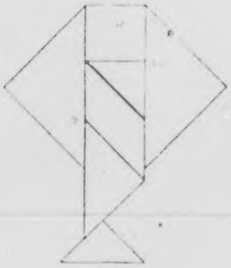

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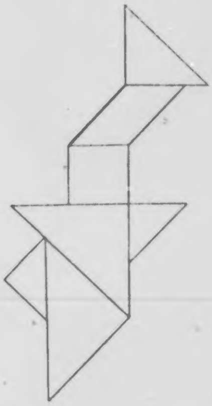

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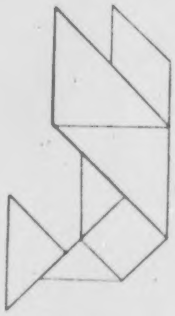

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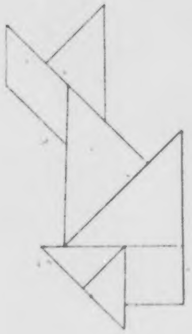

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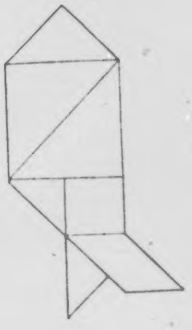

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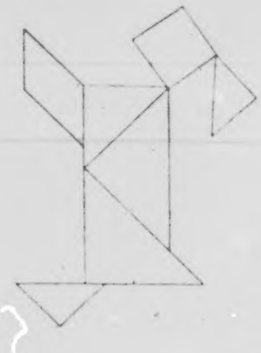

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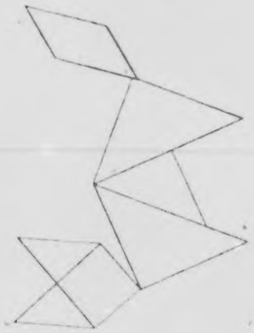

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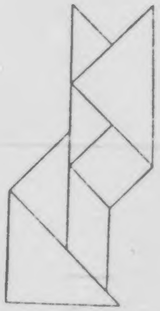

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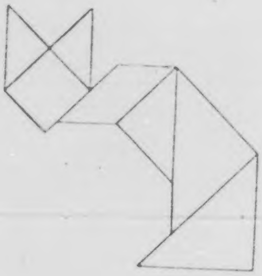

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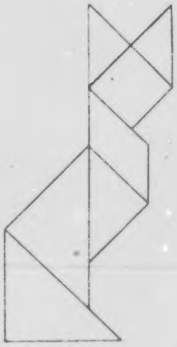

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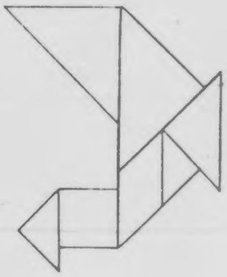

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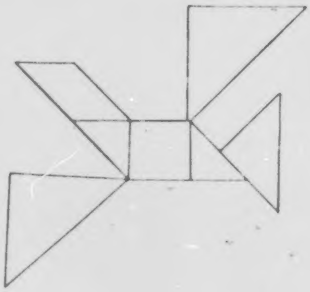

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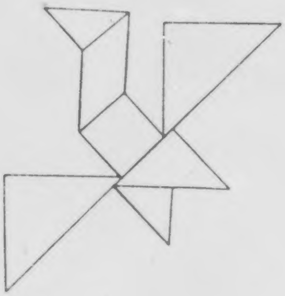

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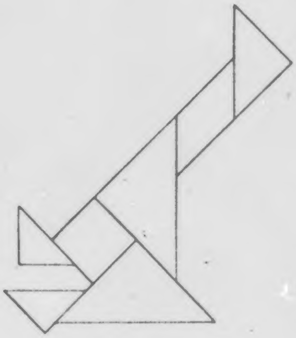

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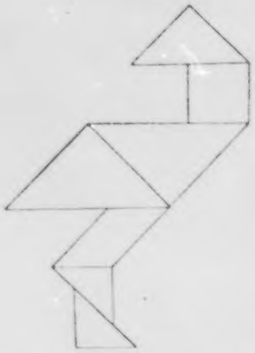
Tangranimals



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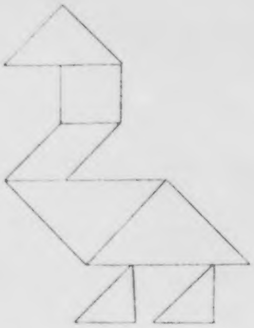

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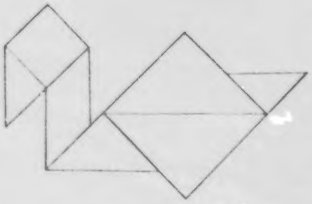

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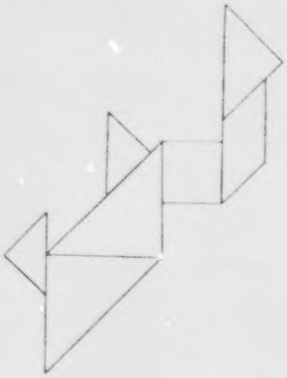

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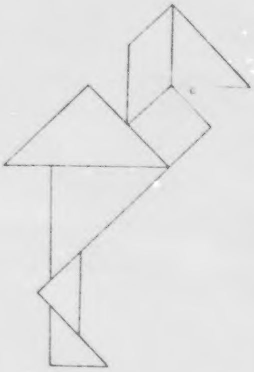

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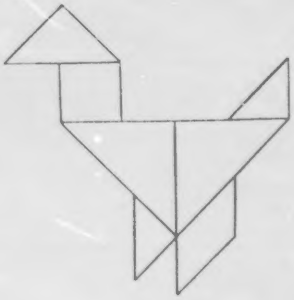

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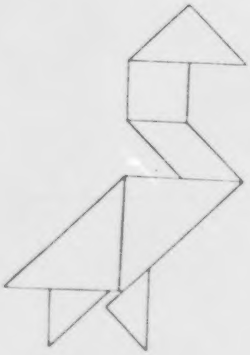

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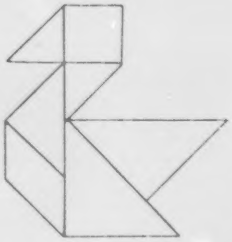

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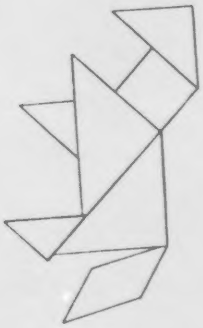

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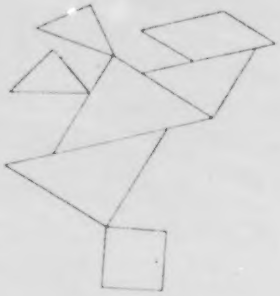

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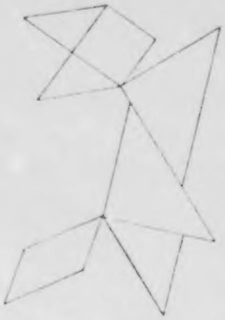

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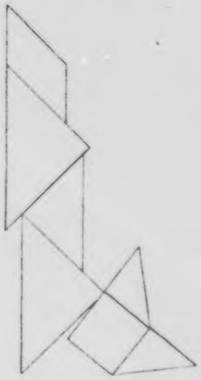

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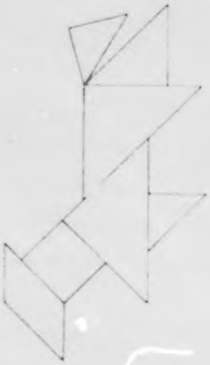

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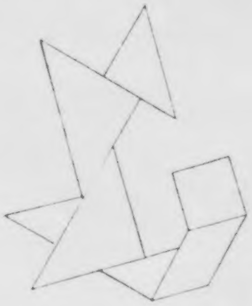

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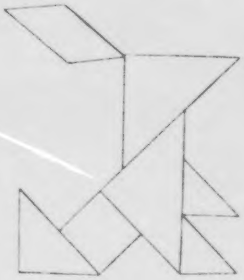

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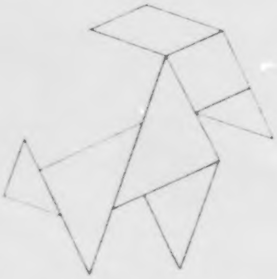

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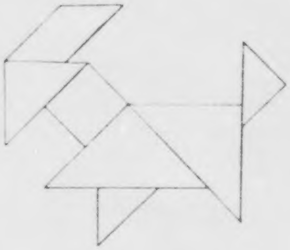

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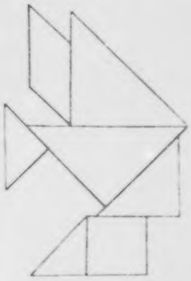

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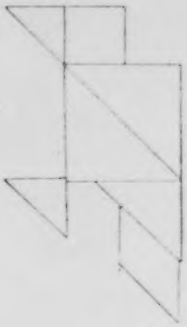

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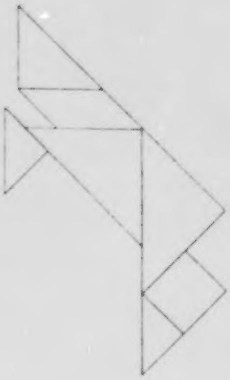

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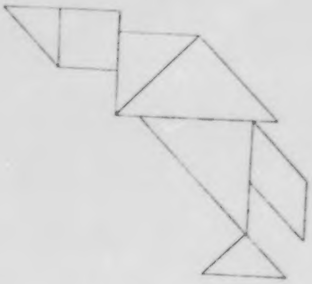

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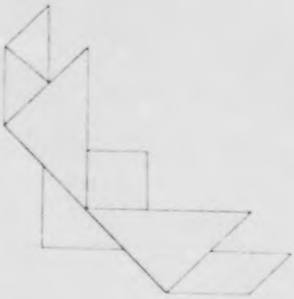

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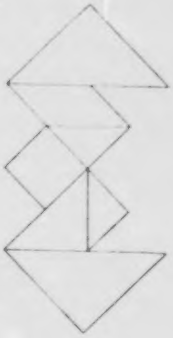

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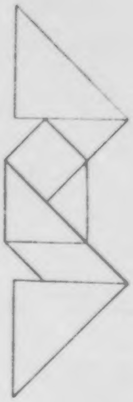

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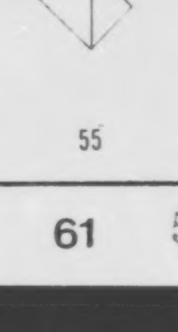

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Independent Curriculum Enrichment Studies

MATHEMATICS

This study is for

Date to begin is

Your study will be the Tangram.

You will use a set of tangrams to do puzzles in the book Fun and Games with Mathematics--Primary. First read about tangrams on page 84. Then begin to work the puzzles. Start on page 88 and go as far as you can. First put the pieces on top of the puzzle. Then try to make the picture again on the table, right next to the book. Do the puzzles in order. Write the number of the puzzles you do on the back of this contract.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the book Fun and Games with Mathematics--Primary by James C. Haugaard... You will find it in the Media Resource Center under the call number 793.7-H.

**a set of tangrams...You will find one in the Media Resource Center or your classroom.

**pencil and a card or piece of paper if you make a new puzzle.

The work you turn in will be the answer to any puzzle your teacher asks for. Do not write the answers; just be ready to show how you did it.

☐ If this box is checked, or if you want to, draw a new tangram puzzle picture.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATHEMATICS
The Tangram

Teacher Information

Grades 1 - 3; for one student

Time: 5 to 15 periods.

Assignment: A first grader will need help to get started. You may want to ask the student to check with you after doing 5 or 6 puzzles. Check the box if the student is to make a new tangram puzzle picture. (Note: The book Fun and Games with Mathematics--Primary provides a number of games, manipulatives and graphing activities which, though not suitable for ICES, may provide classroom enrichment for able math students.)

IMC Information

Commercial material: Book from Contemporary Ideas, P. O. Box 1703, Los Gatos, Ca 95030; $5.95 each; tangrams from Teacher's Exchange, 600 - 35th Avenue, San Francisco, Ca 94121, one package (5 sets per package) for $1.35.

Processing: Catalog book into the library, but place it in an envelope so that pages will not be lost if they are removed for duplication.

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Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Tangram tasks.

You will solve up to 15 tangram puzzles. Some of the puzzles can be done with only two of the tangram pieces, others may need up to the full 7 pieces.

Do _____ cards.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a set of tangrams...You will find them in the ICES file.

**the tangram tasks...You will find the set in the Media Resource Center under the call number KS-793.7-T.

**a card or piece of paper to make your own puzzle.

The work you turn in will be a new tangram task card which you will design yourself.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Tangram tasks

Teacher Information

Grades: 4-6; for one or two students.

Time: Students will usually complete two cards per period; there are 15 cards in the set.

Assignment: Assign one or several cards. They need not be done in sequence.

IMC Information

Commerical material: Set of cards from Teacher's Exchange, 600-35th Avenue, San Francisco, Ca 94121, $1.10. Tangrams from Teacher's Exchange or other sources, about $1.00.

Processing: Catalog task cards into the library. Each set of tangrams goes into a 9x12 checkout envelope set up for the ICES file.

Rev. 4/76

Independent Curriculum Enrichment Studies

MATH

This study is for

Date to begin is

Your study will be Tantalizing Totals. This is just pages 1 to 20 of the book Centuous Math. Do as many of these puzzles as you can in an hour and a half. Trace or draw each puzzle on plain white paper--do not write in the book. Skip around if you want to. take your answers to your teacher to be checked. If you like to do these, guess how long it will take you to complete all of them. Then ask your teacher to extend this contract to give you time to work on the rest of this section.

Be sure to write down which pages you do under "Work Done" on the back of this contract.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the book Centous Math...You will find it in the Media Resource Center under the call number 793.7-G. (The book was written by Marilyn J. Gellis.)
**paper and pencil

The work you turn in will be your completed puzzles.

If you can, make up one new puzzle like these. Or, if you wish, use one of the same diagrams, but make directions that use other number facts than addition.

When you need help, see

Try to finish your study by

Turn in the finished work to

MATH
Tantalizing Totals

Teacher Information

Grade 3; for one student

Time: two periods plus--see instructions to student

Assignment: see instructions to student

IMC Information

Additional teacher information: Answers (3 sides)

Commercial material: see Centuous Math

Processing: see Centuous Math

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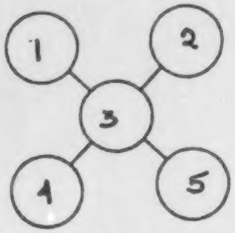
MATH
Tantalizing Totals
Answers

TANTALIZING TOTALS
ANSWERS

1, Total Money in MoneyBag $ 38.80

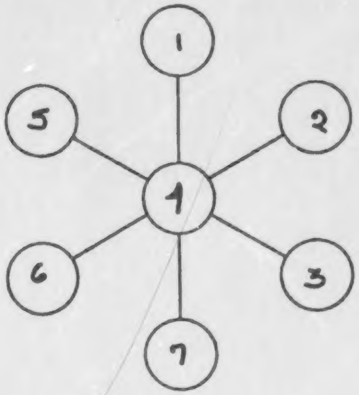
2, **TOTAL NINE**

Using the first five counting numbers, place them in a position so that each line totals nine.



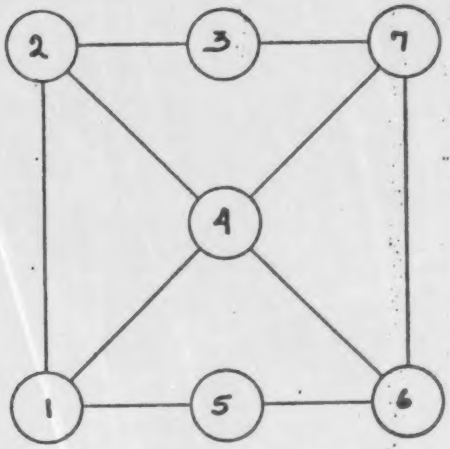
3, **TOTAL TWELVE**

Using the first seven counting numbers, place them in a position so that each line totals twelve



TOTAL TWELVE

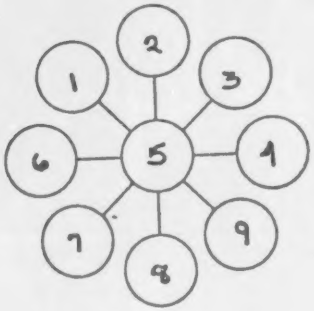
4. Using the first seven counting numbers, place them in a position so that each line totals twelve.



A line means any three circles in a row connected by a line

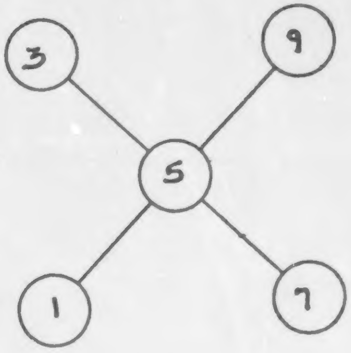
5, **TOTAL--FIFTEEN**

Using the first nine counting numbers, place them in a position so that each line totals fifteen.



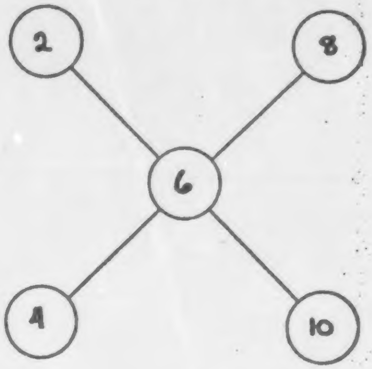
6, **TOTAL-FIFTEEN**

Using only the first five odd numbers place them in a position so that each line totals fifteen.



7, **TOTAL EIGHTEEN**

Using the first five even numbers, place them in a position so that each line totals eighteen..



MATH
Tantalizing Totals
Answers

[illegible] TOTAL 25

1	6	8	10
11			5
9			3
4	12	2	7

18, TOTAL 30

9	4	5	12
8			1
3			6
10	7	2	11

17, TOTAL 26

3	4	9	10
12			8
5			1
6	2	11	17

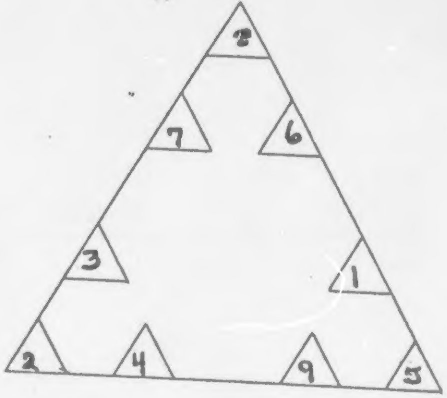
14, - TOTAL 18

6	7	1	4
10			9
2	3	8	5

15, TOTAL 22

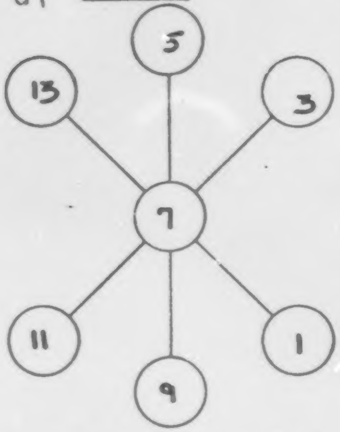
1	10	7	4
11			9
18			6
2	5	12	3

11, TOTAL 20



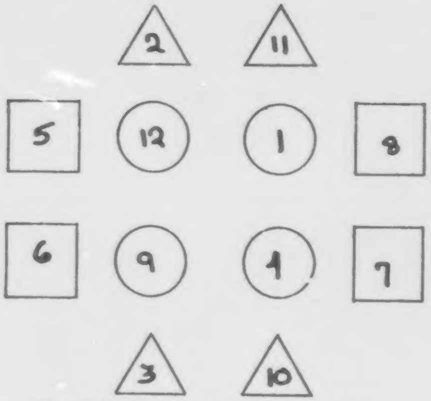
MATH
Tantalizing Totals
Answers

8, TOTAL TWENTY-ONE



Using only the first seven odd numbers, place them in a position so that each row totals twenty-one. (21)

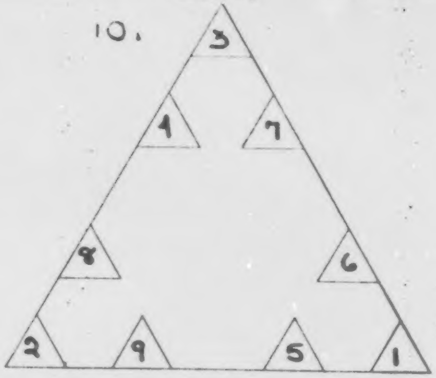
9, TOTAL 26



Using the numbers 1 to 12, place a different number in each geometric shape so that they will add up to the same sum in seven different ways.

1. Each of the 2 center columns
2. Each of the 2 center rows
3. Each of the 4 circles
4. Each of the 4 triangles
5. Each of the 4 squares

10. TOTAL 17



13, Make 15

8	1	6
3	5	7
4	9	2

12, TOTAL 10

1	3	4	2
4	2	1	3
2	4	3	1
3	1	2	4

12, TOTAL 34

1	15	14	4
12	6	7	9
8	10	11	5
13	3	2	16

20, four of his shots landed in The 17 ring
Two shots landed in The 16 Ring.

MATH
Tantalizing Totals
Answers

[illegible] TOTAL [illegible]

1	6	8	10
11			5
9			3
4	12	2	7

18, TOTAL 30

9	4	5	12
8			1
3			6
10	7	2	11

17, TOTAL 26

3	4	9	10
12			8
5			1
6	2	11	17

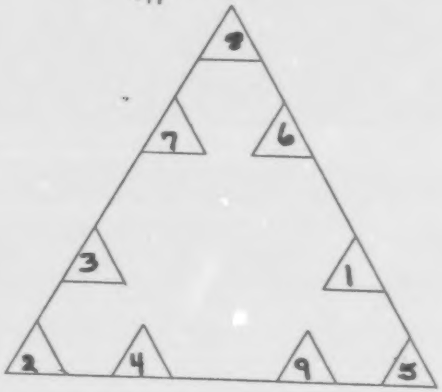
14. TOTAL 18

6	7	1	4
10			9
2	3	8	5

15. TOTAL 22

1	10	7	4
11			9
18			6
2	5	12	3

11, TOTAL 20



Independent Curriculum Enrichment Studies

PERCEPTION

This study is for

Date to begin is

Your study will be Design Blocks and Patterns

In this study you will use a set of nine identical blocks to work out patterns on a set of 12 task cards. You may choose the cards in any order. Put the letter of the cards you work on under "Work Done" on the back of your copy of this contract. You will make at least three new pattern cards for other students.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the set of design blocks and pattern cards...You will find them in the Media Resource Center with the call number GA-152.1-D.

**pencil and paper to make new design block patterns.

The work you turn in will be

☒ Three new design block patterns.

When you need help, see

Try to finish your study by

Turn in the finished work to

PERCEPTION
Design Blocks and Patterns

Teacher Information

Grades 1-6; for one student.

Time: One to five periods.

Assignment: You may wish to assign less than the full set of cards. If so write the letters of the cards the student is to do on the front of his contract.

The Design Blocks and Patterns set consists of nine (9) blocks and twelve (12) design cards printed on each side. Designs on the front side of cards have the perimeter outlined; each design on the reverse side not only has the perimeter outlined, but each block as well. The grid effect on the reverse side reduces perceptual confusion, and provides clarity for solving the perceptual task.

Perceptual difficulty levels range from simple to complex resulting in versatility of use and application.

OBJECTIVES

1. To promote visual discrimination.
2. To promote the ability to perceive spatial relationships.
3. To promote visual memory.
4. To promote fine-motor development.

IMC Information

Commercial material: Design Blocks and Patterns No. 6041 are available from the Ideal School Supply Co., Oak Lawn IL, 60453, at $5.25 per set. They may also be purchased from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518.

Processing: Catalog the set of cards and blocks into the library.

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Independent Curriculum Enrichment Studies

PERCEPTION

This study is for

Date to begin is

Your study will be One to Ten, Count Again by Elaine Livermore.

This book contains 10 pictures with hidden animals. You will complete the puzzles in the book and then draw a new hidden picture puzzle of your own.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the book...You will find it in the Easy section of the Media Resource Center under the call number E-L.
- **pencil, drawing paper, crayons, or paint.

The work you turn in will be a new picture with hidden objects.

When you need help, see

Try to finish your study by

Turn in the finished work to

PERCEPTION
One to Ten, Count Again

Teacher Information

Grades 2-4; for one student.

Time: 1-2 periods.

IMC Information

Commercial material: Book from Houghton-Mifflin, 777 California Avenue, Palo Alto, CA 94304, $3.95.

Processing: Catalog book into the library.

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Independent Curriculum Enrichment Studies

PERCEPTION

This study is for

Date to begin is

Your study will be Secret Codes; Reading Activity Cards; Middle and Upper Grades. Work on whichever code section(s) are marked below. Write your solutions on your own piece of paper. Your teacher has the correct answers.

☐ Semaphore
☐ Pig pen
☐ Picket fence
☐ Caesar cipher
☐ Twenty-six
☐ Symbol
☐ Zodiac
☐ Geometry

As you complete each card, fill in that part of the student record sheet. If you do this study more than once, use the same record sheet each time.

Materials you will need are

**your copy of this contract...You will find it in the ICES file.
**Secret Codes; Reading Activity Cards; Middle and Upper grades...You will find this set in the Media Resource Center under the call number KS-652-S.
**your Secret Codes record sheet...You will find it in the ICES file.

The work you turn in will be your solutions to the code messages.

☐ If checked here, also make up a code of your own and prepare five coded messages for other students to solve.

When you need help, see

Try to finish your study by

Turn in the finished work to

PERCEPTION

Secret Codes; Reading Activity Cards; Middle and Upper Grades

Teacher Information

Grades 3-5; for one student

Time: two to four periods for each code section.

Assignment: Check which code section the student should work on. The available categories are listed below. There are five cards in each group. The task in each case is to translate coded messages into the usual alphabet using a key which is provided.

Semaphore
Pig pen
Picket fence
Caesar cipher
Twenty-six
Symbol
Zodiac
Geometry

Be sure to indicate whether or not you want the student to do the extra project of devising a new code and making cards for other students to solve. This study may be re-assigned until all cards have been completed.

IMC Information

Consumable: Student record sheet (run two to a page; cut before sending to schools)

Additional teacher information: Answer page (two sides; do not cut)

Commercial material: Card set available from Teacher's Exchange in San Francisco or from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274 at $4.95.

Processing: Remove "Suggestions" card, card with lines and "name" at bottom, student record card and four answer cards. Process into the library.

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ANSWERS

SEMAPHONE CODE:

CARD 1

1. What FOOD is DEAR at any price? VENISON.
2. Who has the most FRIENDS for LUNCH? A CANNIBAL.
3. How can you KEEP FISH from SMELLING? CUT OFF their NOSES.
4. Write the DAY of the WEEK in THIS CODE.

CARD 2

1. HELP SEND AID.
2. What question can never be answered "yes." ARE YOU ASLEEP?
3. How can you drive a baby buggy? TICKLE HIS FEET.
4. Where was the Declaration of Independence signed? AT THE END.

CARD 3

1. Write YOUR NAME in THIS CODE.
2. What is BROUGHT to the table, then CUT, but NEVER EATEN? A DECK OF CARDS.
3. What COAT is made WITHOUT SLEEVES and PUT ON WET? A COAT OF PAINT.
4. What turns without moving? MILK.

CARD 4

1. What has FOUR LEGS but only ONE FOOT? A BED.
2. What WALKS on ONE FOOT and HUMS LIKE A BEE? A TOP.
3. What STANDS on ONE LEG with its HEART in its HEAD? LETTUCE.
4. CODE a MESSAGE to a FRIEND.

CARD 5

1. WRITE THE NAME OF this SCHOOL IN THIS CODE.
2. How DO YOU MAKE a slow HORSE FAST? STOP FEEDING HIM.
3. Is WRITING on an EMPTY STOMACH harmful? Not, BUT PAPER IS BETTER.
4. TRY THE FLAGS SOMEDAY.

THE PIG PEN CODE:

CARD 6

1. Write your name.
2. What goes "foow foow?" A backward dog.
3. Why did the rocket lose its job? It was fired.
4. What is a bull when it is sleeping? A bulldozer.

CARD 7

1. Write the names of four boys in your class.
2. Write the names of three girls.
3. What two animals go everywhere that you go? Your calves.
4. Why is your nose in the middle of your face? Because it's the scenter.

CARD 8

1. Name three vegetables.
2. Name your three favorite fruits.
3. How do you make gold stew? Add fourteen carrots.
4. Why does a baby pig eat so much? To make a hog of himself.

CARD 9

1. What is your full name?
2. How old will you be next year?
3. Why is a traffic cop the strongest man in the world? Because he can hold up a ten-ton truck with one hand.
4. What's behind the stars? Policemen.

CARD 10

1. Draw a candy machine.
2. How can you tell when a train has gone? It leaves its track behind.
3. What's the smallest room in the world? A mushroom.
4. What works when it plays and plays when it works? A fountain.

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ANSWERS

THE PICKET FENCE CODE:

CARD 11

1. You can carry this secret code in your head.
2. What did one flea say to the other? Shall we walk or take a dog?
3. How do you stop a charging lion? Take away his credit card.
4. Why do birds fly south in the winter? It's too far to walk.

CARD 12

1. Write your full name in this code.
2. Why did the dentist get fat? Almost everything he touches is filling.
3. What happens when an electric shaver marries a doorbell? They have a little humdinger.
4. What pain do we make light of? A window pane.

CARD 13

1. Write the five kinds of candy you like.
2. What is your favorite food?
3. Where were the first doughnuts made? In Greece.
4. What do you get when you cross corn with cauliflower? Cauliflower ears.

CARD 14

1. Write a message in this code to a friend.
2. What did the little boy say to the lollipop? I can lick you anytime.
3. What's worse than finding a worm in an apple? Finding half a worm.
4. Which side of an apple pie is the left side? The side that isn't eaten.

CARD 15

1. What's the best way to catch a squirrel? Climb in a tree and act like a nut.
2. Who was the unluckiest tree surgeon? The one who kept falling out of his patients.
3. To make this code harder to read, divide your message into groups of four.

THE CAESAR CIPHER:

CARD 16

1. Julius Caesar invented this code.
2. Write a four word message in this code to a friend.
3. Why did the moth eat the rug? To see the floor show.
4. What asks no questions but requires many answers? A doorbell.

CARD 17

1. Make a circle.
2. Write your name in this code inside the circle.
3. What is faster, heat or cold? Heat, you can catch cold.
4. When does a candle feel hot? When it has glowing pains.
5. Write in code: the name of your city—state.

CARD 18

1. Make a square.
2. Write your name inside the square.
3. Put a circle around your name.
4. What makes an elephant's feet so flat? Jumping out of trees.
5. What's the one thing in the world that can never be beaten? A broken drum.

CARD 19

1. Draw a house.
2. Put a tree beside the house.
3. Draw a dog near the house.
4. What three keys have legs but won't open doors? Monkeys, Donkeys and Turkeys.
5. When is a letter damp? When it has postage due.

CARD 20

1. Write your name please.
2. Copy today's date.
3. Which day of the week is today?
4. Where does Monday come before Sunday? In the dictionary.
5. What's the hardest thing to deal with? An old deck of cards.

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ANSWERS

THE TWENTY-SIX CODE:

CARD 21
1. Why is a keyhole beautiful? Because it is something to adore.
2. What kind of bank needs no money? A river bank.
3. Why did Paul take a hammer to bed? So he could hit the hay.
4. Sign your name.
5. Date your paper.

CARD 22
1. Write the names of four friends.
2. Write the name of your street.
3. When do giraffes have eight legs? When there are two of them.
4. What is black, white and red all over? A blushing Zebra.
5. Sign your paper.

CARD 23
1. Which three kinds of cars do you like?
2. Name five classmates.
3. What are the common causes of forest fires? Men, women and children.
4. When is a mother flea the saddest? When her children go to the dogs.
5. Go to next code.

CARD 24
1. Write five words that begin with A.
2. Write your full first and last names in this code.
3. How can you make a dollar fast? Nail it to the table.
4. Why isn't ten cents worth what it once was? Because dimes have changed.

CARD 25
1. Write a message in this code to a friend.
2. List five of your teachers not in code.
3. When is a frog not able to talk? When he has a man in his throat.
4. What is worse than raining cats and dogs? Hailing taxicabs.

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A SYMBOL CODE:

CARD 26
1. Symbols make a good code.
2. What is taller sitting than standing? A dog.
3. What is green, has two legs and a trunk? A seasick tourist.
4. How do you milk a caterpiller? First you get a low stool.
5. If a dog lost his tail, where could he get another one? At a retail store.
6. Sign your paper.

CARD 27
1. Make a list of four cities.
2. What town do you live in?
3. Write your address.
4. How many big men have been born in New York City? None, only babies.
5. Why does the Statue of Liberty stand in New York? Because it cannot sit down.

CARD 28
1. What are your four favorite foods?
2. What do you like for breakfast?
3. What has a mouth and a fork but never eats? A river.
4. What nut reminds you of a sneeze? A cashew nut.
5. Why is a stick of candy like a racehorse? The faster you lick it, the quicker it goes.

CARD 29
1. Write your name in this code on your paper.
2. Make a list of five baseball teams.
3. What is the name of your favorite ball player?
4. What position do you like to play?
5. What has eighteen legs and catches flies? A baseball team.

CARD 30
1. Draw a monster car. 2. Draw a garage for your monster car.
3. Draw a tree near the garage. 4. If all the cars in the nation were pink, what would we have? A pink carnation.
5. Please sign your picture. 6. Wasn't this code fun!

ANSWERS

THE ZODIAC CODE:

CARD 31
1. Write your name in this code.
2. The sign stands for Mars.
3. The sign stands for earth.
4. How can you find a lost rabbit? Make a noise like a carrot.
5. What bus crossed the ocean? Columbus.

CARD 32
1. Write the first three months of the year in this code.
2. When is your birthday?
3. Why is rain different from Sunday? Because it can fall on any day of the week.
4. Why are hurricanes named after girls? Because they are not himicanes.
5. Symbols become easier with practice.

CARD 33
1. Draw a triangle.
2. Write a number inside the triangle.
3. What time is it when the clock strikes thirteen? Time to get the clock fixed.
4. What's the difference between a tunafish and a piano? You can't tune a fish.

CARD 34
1. Write a note to a friend in this code.
2. Draw a map of your room.
3. What's the difference between a bee and a donkey? One gets all the honey, the other all the whacks.
4. What do giraffes have that no other animal has? Little giraffes.

CARD 35
1. List five things in your desk.
2. Put your list in this code.
3. If eggs were 26 cents a dozen, how many could you buy for a cent and a quarter? Twelve.
4. Why was the little strawberry upset? Because his mom and dad got into a jam.

THE GEOMETRY CODE:

CARD 36
1. Watch the dots!!
2. List five green things you see.
3. What's a coquette? A small Coca-Cola.
4. What's a good thing to part with? A comb.

CARD 37
1. Sign your paper.
2. What kind of ears do engines have? Engineers.
3. You can only keep it by giving it away. A promise.
4. What is today's date?

CARD 38
1. Draw a circle.
2. Write your name inside the circle.
3. When is a sailor not a sailor? When he's aboard.
4. What kind of shoes are made of banana skins? Slippers.

CARD 39
1. Draw a box.
2. Write the date inside the box.
3. Why is a hen immortal? Because her sun never sets.
4. What's the easiest way to double your money? Fold it.

CARD 40
1. Draw this code pattern.
2. What thing is lengthened by being cut at both ends? A ditch.
3. How do you get a horse out of a bathtub? Pull out the plug.

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Independent Curriculum Enrichment Studies

PERCEPTION

This study is for

Date to begin is

Your study will be Take Another Look, by Edward Carini.

This is a book of puzzles to look at. You will complete the whole book and then make a secret message similar to the one on the last page.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the book...You will find it in the Easy section in the Media Resource Center under the call number E-C.

**plain paper, pencil and crayons.

The work you turn in will be a SECRET message of your own similar to the one on the last page of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

PERCEPTION
Take Another Look

Teacher Information

Grades: 2-4; for one student.

Time: 1 period.

IMC Information

Commercial material: Book from Prentice Hall, Englewood Cliffs, New Jersey, 07632, $5.25.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies
READING

This study is for

Date to begin is

Your study will be Individualized Reading Job Cards by Stan Laird.

You will select from a set of 156 cards which deal with different aspects of reading. They may be used in conjunction with books or merely short stories. The teacher may wish to select a particular combination of cards depending on the needs, weakness, and strengths of the students.

Materials you will need are

- your copy of this contract...You will find it in the ICES file.
- a set of Individualized Reading Job Cards...You can check these out of the Media Resource Center where they are cataloged under call no. KS-428.4-I
- paper, pencil (or other materials depending on the particular cards selected)

The work you turn in will be

☒ completed activities required for Individualized Reading Job Cards Nos. ___, ___, ___, ___, ___,

When you need help, see

Try to finish your study by

Turn in the finished work to

READING

Individualized Reading Job Cards by Stan Laird

Teacher Information

Grade 4-6 for one student. A few cards require participation of more than one student.

Time: One or more periods depending on how many cards are selected.

Assignment: These cards may be used developmentally for students who have specific weaknesses or as enrichment for other students. Any number of contract combinations are possible. For the teacher's assistance in making a contract for a particular student, a teacher's guide for the skills covered by the cards is included.

IMC Information

Additional teacher information: Teacher's Guide to Skills for Individualized Reading Job Cards

Commercial material: Individualized Reading Job Cards by Stan Laird are available from The Magic Horse, 2118-A Vine Street, Berkeley, California for $8.95.

Processing: Catalog the cards into the library.

3/77

Teacher's Guide to Skills

for

Individualized Reading Job Cards

Skill	Card Number
Comprehension:	
Anticipating outcome	1-4, 137, 143, 144
Comparing and contrasting	5-8, 121, 151-153
Sensory imagery	9
Evaluating character traits	10-12, 119
Evaluating ideas gained from reading	13-18
Figurative speech	19-20, 138, 139
Finding the main idea	21-25, 46, 115, 116
Identifying the setting of the story	26-28, 60
Interpretation through oral reading	29 & 33
Interpretating the emotional reactions of story characters	30-31
Interpretating the motives of story characters	32
Making generalizations	36, 48, 68
Making judgments and drawing conclusions	37, 49, 56, 69, 110-114
Recognizing plot structure	38, 41, 42, 45, 53, 54, 122, 124
Recognizing sequence in story	39, 52, 73, 125-129
Relating ideas gained from reading to personal experience	40, 44, 76-80
Relating pictures to the text	43, 58, 82, 105
Making inferences	50
Relationships: Cause and effect	51, 130-132
Identifying the speaker and the words spoken by him	55
Phrase and sentence meanings	57, 71, 72, 154-156
Interpretation through art	61
Word meanings	64, 86, 89, 109
Strengthening memory of material read	65, 66, 83, 106, 135, 136
Interpreting emotional reaction, motives and behavior of story characters	34, 47, 59, 62, 63, 67
Noting details	70, 145, 147
Reference skills	74, 75
Easy book report or story report	81
Summarizing and organizing ideas	84, 85, 107, 108, 120
Understanding the meanings of prefixes and suffixes	87, 88
Identifying the problem or plot of the story	117, 118, 124
Recognizing the emotional reactions, motives and inner lives of characters	133, 134
Anticipating what comes next	140-142
Generalizations	148-150

Skill		Card Number
Word Attack Skills:		
Structural analysis		90, 91
Phonics:	Consonant blends	99
	Syllabication	100
	Vowels	101-104
Reading in the Content Subjects:		
Science		92-94
Spelling		95-96
Dictionary Skills:		
Alphabetizing		97-98

Independent Curriculum Enrichment Studies

READING

This study is for

Date to begin is

Your study will be Read and Reason.

Choose _____ cards to do. Write your answers on your own paper. Your teacher has the correct answers.

When you finish a card, color in that number section on the record sheet for Read and Reason. If you do this study more than one time, use the same record sheet.

Materials you will need are

**your copy of this contract...You will find it in the ICES file.
**your record card for Read and Reason...Take one from the ICES file.
**the Read and Reason cards...You will find the set in the Media Resource Center under the call number KS-428.4-R.
**pencil and paper.

The work you turn in will be your answers to the problems on the cards. If you wish, you might try to make up a new activity card for other students to use.

When you need help, see

Try to finish your study by

Turn in the finished work to

READING
Read and Reason

Teacher Information

Grades 3-4; for one student

Time: A student will complete one or two cards in a period.

Assignment: Be sure to indicate how many cards the student should complete. There are 42 cards. .They are not arranged in any particular order. The student might repeat this study until all cards have been completed.

IMC Information

Consumable: student record sheet (run 2 to a page; cut apart before sending to schools)

Additional teacher information: Answer page (1 side; do not cut)

Commercial material: Card set available from Teacher's Exchange in San Francisco, or from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274, at $4.95.

Processing: Remove "Suggestions" card, "name" card with lines, record card and two answer cards. Process into the library.

3/75

ANSWERS

1. **Alphabet Soup** —
    1. Never open pickles quite rapidly since they're usually very warm.
    2. Certain children didn't ever forget how many miserable places they visited.
    3. Sadie saw seven small soggy sponges.
    4. Carol caught Charlie chasing Cindy's clumsy cobra.
    5. Many merry mice might miss mistakes Monday morning.
2. **Picture This** — Answers will vary.
3. **What's The Good Word** — Answers will vary.
4. **Be A Good Sport** — 1. bunt 2. coach 3. base 4. umpire 5. goal 6. punt 7. tackle 8. lose 9. golf 10. fly
5. **A Square Deal** — man, many, any, yon, onto, tour, our, urge, urgent, "gent", enter, term, ermine, mine, miner, ere, reach, each, ache, cheap, cheapest, heap, ape, pest, store, tor, tore, ore, rear, rearm, ear, arm
6. **Super Scrambles** —
    1. The baby bird tries hard to fly.
    2. It is fun to do puzzles.
    3. I have only one pencil left on my desk.
    4. Cars and trucks cause air pollution.
    5. The boy caught the ball with his right hand.
    6. What foods do you like to eat?
    7. Most children like to play hide and go seek.
7. **Word Twins** — 1. can 2. pit 3. act 4. may 5. seal 6. foot 7. squash 8. cable 9. pitch 10. school 11. cold
8. **What's Missing?** — 1. day - night 2. hot - cold 3. public - private 4. catch - throw 5. rich - poor 6. never - always 7. noisy - quiet 8. sharp - dull 9. good - bad 10. big - little 11. clean - dirty 12. wake - clean 13. open - close 14. wide - narrow 15. short - tall 16. happy - sad
9. **Slow Down** — 1. ride 2. wide 3. wade 4. made 5. male 6. bale 7. tale 8. talk
10. **Double - Trouble** — Row 1 — one, two, to Row 2 — sun, so, by Row 3 — to, some, for Row 4 — sale, meat Row 5 — so, piece Row 6 — way, heard Row 7 — road, pair, right Row 8 — there, by, their, scent Row 9 — their, tails Row 10 — right, through, hole
11. **Put-Togethers** — 1. gentleman 2. spiderweb 3. typewriter 4. buttonhole 5. windshield 6. rainbow 7. wristwatch
12. **The Long And Short Of It** — 1. isn't 2. I'll 3. Aren't 4. couldn't 5. That's 6. we're 7. I've 8. Didn't 9. Don't 10. I'd 11. hasn't
13. **Vegetable Bowl** — 1. pea 2. spinach 3. potato 4. radish 5. tomato 6. corn
14. **History Mystery** — Columbus
15. **State Your Mind** — 1. Wash. 2. Me. 3. Kan. 4. Md. 5. Ill. 6. Mo. 7. Tenn. 8. Ark. 9. Pa. 10. Ore.
16. **Next Please** — 2, 4, 7, 1, 8, 6, 3, 5
17. **What's For Dinner** — 1. stay 2. go 3. stay 4. go 5. stay 6. go 7. stay 8. go 9. go 10. stay
18. **Think Big** — eat - dine think - cogitate wash - launder sweat - perspire give - donate pants - trousers glasses - spectacles city - metropolis stockings - hosiery house - abode rain - precipitation cry - lament job - position
19. **Be Brief** — Y, C, P, I, B, T, U, J
20. **Repeat Performance** — Answers will vary.
21. **Homeward Bound** — 1. wide 2. wine 3. nine 4. none 5. nose 6. hose 7. home
22. **Back And Forth** — 1. tub - but 2. saw - was 3. deal - lead 4. slap - pals 5. pit - tip 6. tips - spit 7. repaid - diaper 8. reward - drawer 9. flow - wolf 10. trams - smart

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ANSWERS

23. **Price A Word** — From left to right — $1.67, 62¢, 60¢, 75¢, 35¢, 65¢, 47¢, 9¢, 79¢, 67¢, 49¢, 84¢, 24¢, 60¢, 45¢
24. **Triple Decker** — 1. charity 2. able 3. song 4. arithmetic 5. barrel 6. wise 7. sinker 8. Harry 9. large
25. **Word Pyramid** — a, at, tea, meat, steam, master, streams, mattress
26. **Sentence Building** — Answers will vary.
27. **Your Type of Puzzle** — Three people can keep a secret if two of them are dead.
28. **All Mixed Up** — 1. Washington 2. Texas 3. Maryland 4. Ohio 5. Florida 6. Wyoming 7. California 8. Maine 9. New Jersey 10. Utah 11. Pennsylvania 12. Alaska 13. Hawaii 14. Missouri 15. Colorado 16. Arkansas 17. Georgia 18. Tennessee 19. Iowa 20. Oregon
29. **Plus One** — Possible answers — 1. border 2. amount 3. booth 4. crowd 5. slight 6. danger 7. plane 8. cheap 9. grown 10. blame 11. acorn 12. dearly 13. thought 14. blurt 15. grime 16. hearth 17. traps
30. **Before And After** — Answers will vary.
31. **Be A Word Detective** — 1. who 2. why 3. when 4. where 5. when 6. where 7. how 8. why 9. where 10. what 11. when 12. how 13. who
32. **Word Safari** — Vespucci
33. **Good Humor** — 1. funny bunny 2. crazy daisy 3. chilly Willy 4. loud - crowd 5. blue glue 6. cheap jeep 7. shy spy 8. cross boss 9. legal beagle
34. **1 - 2 - 3 Read** — 1. difference 2. passenger 3. governor 4. beautiful 5. traveler 6. importance 7. dangerous 8. memory 9. interrupt 10. inspection 11. finally
    * electric * direction
35. **Think Twice** — inch, seasons, policeman, igloo, chalk, banana
    A small hole can sink a big ship.
36. **Rhyme Time** — boi - toy duv - love boks - locks fōn - moan flō - slow tuch - such rōst - toast kōl - pole skout - shout fakt - packed tōd - road toun - frown katz - mats kou - how
37. **Odd Word Out** — 1. chair 2. sister 3. duck 4. sun 5. gloves 6. Miami 7. band 8. bird 9. football 10. ten
38. **Fabulous Fill-in** — Answers will vary.
39. **Pretty As A Picture** — 1. bee 2. feather 3. house 4. mule 5. ice 6. monkey 7. prune 8. hornet 9. bone
40. **Time For A Change** — 1. truck, car, bus 2. bride, groom, rice 3. chair, bench, stool 4. oak, elm, ash 5. cooky, cake, pie 6. candle, light, flame 7. rain, puddle, boots 8. bath, soap, towel
41. **Ice And Easy** — 1. nice 2. twice 3. rice 4. mice 5. spice 6. dice 7. price 8. lice 9. slice
42. **Oh My Word** — 1. cheat - teach 2. laces - scale 3. meat - team 4. melon - lemon 5. panel - plane 6. carets - crates 7. notes - stone 8. softer - forest 9. dealer - leader 10. livers - silver

Independent Curriculum Enrichment Studies

READING

This study is for

Date to begin is

Your study will be Read Better, Learn More by Theodore Clymer

These three workbooks will teach you how to read science, math and social studies more efficiently. There are three workbooks, A, B and C. You will do:

☐ Workbook A

☐ Workbook B

☐ Workbook C

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a copy of your Read Better, Learn More workbook. You will find it in the ICES file.

**pencil or pen

The work you turn in will be the completed workbook with answers written very neatly. The correct answers are in the back of the book. Check your work as you go.

When you need help, see

Try to finish your study by

Turn in the finished work to

READING
Read Better, Learn More

Teacher Information

Grades 5-6; for one student

Time: This will vary.

Assignment: Be sure that the student examines the book carefully before he begins, to be sure that he will complete it, since the workbook must be used as a consumable. Be sure to check which workbook the student is to do.

IMC Information

Commercial Material: Workbooks A, B and C from Ginn and Co., 2550 Hanover Street, Palo Alto, CA 94304, $2.64 each.

Processing: The workbooks are used as consumable, therefore they should be filed in the ICES file.

Rev. 4/76

Independent Curriculum Enrichment Studies

READING

This study is for

Date to begin is

Your study will be Reading Activity Cards for Fun.

☐ Choose _____ cards to solve. Write down your answers.

☐ Work on these cards and do as many as you can do well before the due date.

As you finish each card, color in that number on the record sheet for Reading Activity Cards for Fun. If you have this study more than once, use the same record sheet.

Materials you will need are

- **your copy of this contract--You will find one in the ICES file.
- **your record sheet for Reading Activity Cards for Fun--Take one from the ICES file.
- **the Reading Activity Cards for Fun...You will find the card set in the Media Resource Center under the call number KS-428.4-R.
- **paper and pencil

The work you turn in will be your answers to the cards you choose. If you wish, you may make up a new card for other students to use.

When you need help, see

Try to finish your study by

Turn in the finished work to

READING
Reading Activity Cards for Fun

Teacher Information

Grades 2-3; for one or two students

Time: Students will complete one or two cards in a period.

Assignment: Be sure to indicate how many cards the student should complete or for how many days you wish him to work. There are 41 cards in the set. They are not arranged in any sequence.
This study may be assigned more than once, until all cards have been completed.

IMC Information

Consumable: student record sheet (run two to a page; cut apart before sending to schools)

Commercial material: Card set available from Teacher's Exchange in San Francisco or from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274 at $4.95.

Processing: Remove "Directions" card, "name" card with lines, advertising card for "Fun and Games with Reading" and "My Reading Activity Record Card." Process for the library.

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Independent Curriculum Enrichment Studies

READING

This study is for

Date to begin is

Your study will be Reading Comprehension Activity Cards for Fun.

Choose ____ cards to do. Write your answers on your paper. Your teacher has the correct answers. When you finish a card, color in that number section on the record sheet for this activity. If you do this more than one time, use the same record sheet.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**your record card for Reading Comprehension Activity Cards for Fun...Take one from the ICES file.
**the Reading Comprehension Activity Cards for Fun cards...You will find them in the Media Resource Center under the call number KS-428.4-R.
**pencil and paper

The work you turn in will be

☒ Answers to ____ Reading Comprehension Activity Cards for Fun.
☒ Reading Activity Record Card.

When you need help, see your teacher.

Try to finish your study by

Turn in the finished work to

READING

Reading Comprehension Activity Cards for Fun

Teacher Information

Grades 2-3 for one student.

Time: A student will complete one or two or more cards in a period.

Assignment: Be sure to indicate how many cards you wish the student to do on his/her contract. There are 40 cards in all. You may wish a student to repeat this at a later date doing different cards.

IMC Information

Additional teacher information: Answer sheet questions 1-40.

Consumable: Student record sheet (run 2 to a page and cut apart before sending to schools).

Commercial material: Card set available from Morrison School Supplies, 304 Industrial Way, San Carlos, California 94070 at $4.95.

Processing: Remove name card, record card and answer cards. Catalog into library.

Rev. 7/76

ANSWERS

1 1. vary 2. dishes 3. homework 4. a grown-up

2 1. vary 2. Mother 3. hide in room; throw cake away 4. tell Mom 5. vary

3 1. colors 2. used in baseball 3. numbers 4. vary

4 1. tell a story 2. a fun book 3. on the rug 4. Once upon a time . . .

5 1. I have a dog 2. my dog 3. have his belly rubbed, cheese, sleep in my bed 4. my dog

6 1. Dad 2. tender 3. fast 4. snooze

7 1. it's raining 2. vary 3. float paper boats

8 1. a circus parade 2. clowns 3. a band 4. monkeys

9 1. to buy a hamburger 2. cheese, ketchup 3. french fries

10 1. floor, wall, room, sink 2. elephants, monkeys, tigers, cows, skunks 3. elephant

11 1. on a street corner 2. blue 3. dog, cat 4. two

ANSWERS

12 1. color 2. bananas 3. orange 4. red

13 1. my friend or Jimmy 2. jokes 3. monsters 4. Speedy

14 1. boy, girl 2. yes, no run, walk 3. down

15 1. grass 2. naming clouds 3. horse, butterfly, flower 4. to float like a cloud

16 1. a monkey 2. POTATO CHIPS 3. she eats potato chips 4. three years old 5. the monkey

17 1. my bicycle 2. red 3. my honking horn 4. ride without hands on handlebars 5. next to my bed

18 1. to the movies 2. to see better 3. by eating his popcorn 4. Bugs Bunny

19 1. a mouse 2. in our house 3. cheese 4. run all over the house 5. under my bed 6. Mr. Invisible

20 1. answers will vary 2. a hamster 3. dusted it 4. my marbles 5. can't catch the hamster

ANSWERS

21 1. little dog 2. one 3. six 4. little dog left out a number

22 1. stick of bubble gum 2. blow a bubble 3. pulled me into the air

23 1. bird, cat 2. blue 3. answers will vary 4. bird flew away

24 1. look 2. answers will vary 3. bed 4. boy, day

25 1. monster 2. good 3. play baseball, eat ice-cream, go to school 4. in books

26 1. drip, drip 2. woof-woof, oink, oink, meow 3. zzzz 4. pop, pop, pop 5. hooray

27 1. singing a song 2. answers will vary 3. answers will vary

28 1. after it rains 2. answers will vary 3. where the rainbow starts or ends 4. a pot of gold is at the end of the rainbow

29 1. a dog 2. fast 3. to the park 4. his mother 5. a dog bone

30 1. to the store 2. push the cart 3. potatoes, eggs 4. answers will vary

ANSWERS

31 1. answers will vary 2. jelly, peanut butter, bread 3. gets messy 4. leaves the kitchen

32 1. a jar is made from glass 2-6 answers will vary

33 1. running or racing 2. Jimmy 3. You

34 1. naming the days of the week 2. Sunday 3. Thursday 4. seven

35 1. ten o'clock 2. Jimmy 3. wet sand 4. car 5. doesn't fall down

36 1. take a walk 2. my friend Jimmy 3. to the park 4. play ball; fly kites 5. when it starts getting dark.

37 1. a riddle 2. yes or no 3. answers will vary

38 1. baby sitting 2. give him a milk bottle 3. out of the house 4. answers will vary

39 1. our kitchen 2. table, chairs, stove, dishes, pots 4. a horse in the kitchen

40 1. a shorter way of writing words 2. Oct. 3 N.Y. 4. Mon. 5. United States of America

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Anthropology I -- Pre-primate to Neanderthal Man.

Read the study. Do each activity checked below as you come to it in the study. (If you find any subject in the study especially interesting you may do a research project about that subject when you finish this one. You could use the "Find Out About" study from the ICES file.)

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Anthropology I study...Check it out from the ICES file.
- **The activities require various supplies. Be sure you will be able to get everything you need before you start your activity.
- **your copy of the crossword puzzle...Take one from the ICES file.
- **pencil or pen and paper.

The work you turn in will be the activities checked:

☒ I Reptiles and mammals
☒ II Hypotheses
☐ III and VIII Family trees
☐ IV Imaginary animal
☐ V Homo erectus story
☒ VI Man, baboons and chimpanzees
☐ VII Neanderthal ceremony
☐ IX Man and dinosaurs
☒ X Crossword puzzle

If you want to do an activity which is not checked, do that also.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Anthropology I -- Pre-primate to Neanderthal Man.

Teacher Information

Grades 4-6; for one or two students

Time: Allow at least 15 periods for this study.

Assignment: Some activities are required; they are already marked. Check any additional activities you want the student to do.

IMC Information

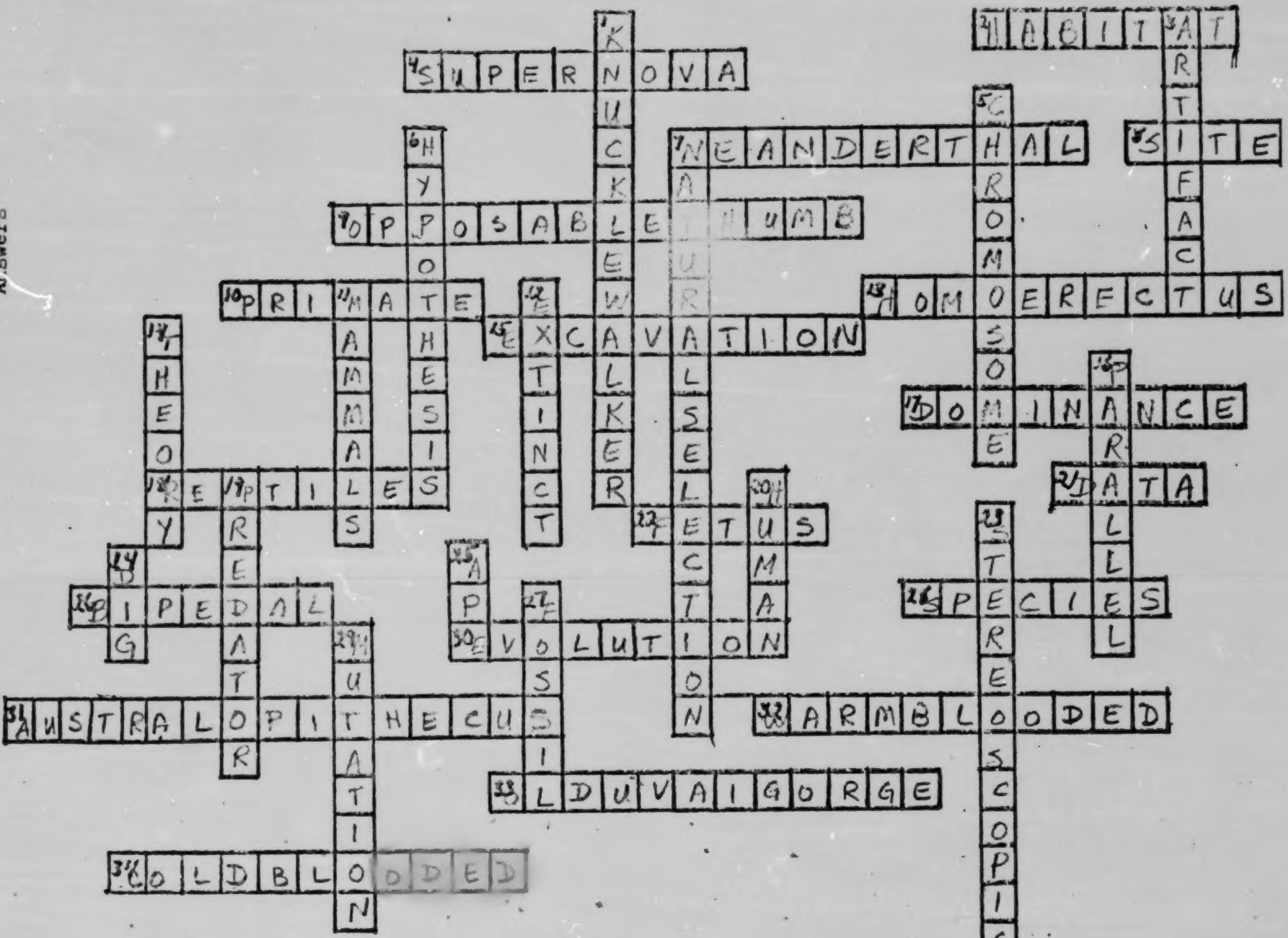
Additional Teacher Information: Crossword puzzle answers (one side)

Study: Cover and 29 pages

Consumable: Crossword puzzle

8/75

SCIENCE
Anthropology I
Answers


1 KNUCKLEWALKER
2 HABITAT
3 ARTIFACT
4 SUPERNOVA
5 CHROMOSOME
6 HYPOTHESIS
7 NEANDERTHAL
7 NATURAL SELECTION
8 SITE
9 OPPOSABLE THUMB
10 PRIMATE
11 MAMMALS
12 EXTINCT
13 HOMO ERECTUS
14 THEORY
15 EXCAVATION
16 PARALLEL
17 DOMINANCE
18 REPTILES
19 PREDATOR
20 HUMAN
21 DATA
22 FETUS
23 STEREOSCOPIC
24 DIG
25 APE
26 BIPEDAL
27 FOSSIL
28 SPECIES
29 MUTATION
30 EVOLUTION
31 AUSTRALOPITHECUS
32 WARMBLOODED
33 OLDUVAI GORGE
34 COLDBLOODED

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Comets.

In this library research study you will find out about comets. You will do a notebook to show what you have learned and then complete a project which you will choose.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of this study...Check one out from the ICES file.

**7 sheets of lined paper.

**library books and materials...Find what you need in the Media Resource Center.

**Materials for activities will depend upon which activity you will choose...Be sure you can get everything you will need before you begin to work.

The work you turn in will be a notebook containing answers to five questions, vocabulary words, and a list of the sources you used. You will also complete a project.

When you need help, see

Check with your teacher before you begin to work on the project you have chosen.

Try to finish your study by

Turn in the finished work to

SCIENCE
Comets

Teacher Information

Grades: 4-6; for one to four students.

Time: 5 periods for the notebook; set an appropriate time for the activity when it is chosen.

IMC Information

Study: Cover and 5 pages.

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Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Conserving Our Environment.

This study consists of five tape cassettes with worksheets. Do the tape or tapes checked below.

- ☐ Basic needs of man (RT-573-B)
- ☐ Water supply and purification (RT-628.1-W)
- ☐ Water pollution and sewage treatment (RT-628.1-W)
- ☐ Fighting for clean air (RT-614.7-F)
- ☐ Eco can mean life (RT-573-E)

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the tape cassette with worksheet...You will find each tape in the Media Resource Center under the call number indicated above.

**a plastic cover with china marking pencil OR tracing paper with a pencil OR a copy of the worksheet that you can write on directly. (Check with your teacher.)

**tape cassette player.

The work you turn in will be your completed worksheets.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Conserving our environment

Teacher Information

Grades: 4-6; for one to five students

Time: 1 period per tape

Assignment: Be sure to check which tape or tapes the student is to complete. This series of tapes should be done in sequence. Teacher's guides with follow-up suggestions are available in the Media Resource Center.

IMC Information

Commercial material: 5 tape cassettes, nos. C-3301 through C-3305, from Coronet, 65 East South Water Street, Chicago, Illinois 60601, at $9.95 each. Additional worksheets available at $2.20 per package of 30.

Processing: Catalog tapes into library. Staple one worksheet into teacher's guide, which should be filed separately in the library. Put 5 copies of worksheet into plastic sleeves. Remaining worksheets are to be sent to the school where they may be put in teacher's binders or kept in the ICES file as spares.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Dinosaur Study

In this study you will read about dinosaurs and learn some vocabulary words. You will match the names and pictures of dinosaurs to their descriptions. You will assemble a dinosaur skeleton. You will read a funny dinosaur story and find true facts and errors in it. Then you will do an activity.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check it out from the ICES file.
**Worksheets I, II, III and IV.
**Reference books from the library.
**12x18 sheet of construction paper and paste.
**lined paper and pencil

The work you turn in will be

____ Vocabulary sheet
____ Worksheets I, II, III, IV completed
____ Assembled dinosaur pasted on 12x18 sheet
____ Facts and Errors Sheets for A Funny Dinosaur Story
____ An Activity

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Dinosaur Study

Teacher Information

Grades 3-6; for one or more students.

Time: Allow at least 3 weeks, depending upon which activity is chosen.

Assignment: Check if you wish the student to do an activity or not.

IMC Information

Study: Cover and 11 pages.

Consumables: Worksheets I, II, III and IV, packaged in one envelope labeled Dinosaur Study Worksheets.

Additional teacher information: Answers to Worksheets and story.

Commercial material: the puzzles from American Publishing Corp., Watertown, Mass., 02172, at $1.95 each. Also available for the same price from Warren's Educational Supplies, 1000 Detroit Ave., Concord, CA 94518.
The Dinosaurs and Prehistoric Animals Flash Cards are available from Edu-Cards, Easton, Pa., 18042, at $1.25. Also available for the same price from Warren's Educational Supplies, 1000 Detroit Ave., Concord, CA 94518.

Processing: Xerox Worksheet III pages 1-6 back to back on 3 sheets and collate. Catalog supplementary materials into library (dinosaur puzzles, flash cards and books).

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Answer sheet for the Dinosaur Study

Match Me

p.1 "lizard that looks like a fish" ---- Ichthyasaurus
"double-beamed" ---- Diplodocus
"Prow beak" ---- Rhamphorhynchus

p.2 "forerunner of the horned face" ---- Protoceratops
"thunder lizard" ---- Brontosaurus
"ragged thief" ---- Phororhacos

p.3 "winged but without teeth" ---- Pteranodon
"tyrant lizard" ---- Tyrannosaurus
"double-measure teeth" ---- Dimetrodon

p.4. "beside the lizard with a crest" ---- Parasaurolophus
"reptile from the Meuse" ---- Mosasaur
"roofed lizard" ---- Stegosaurus

p.5. "three-horned face" ----Tricetatops
"other lizard" ---- Allosaurus
"spiked lizard" ---- Styacosaurus

p.6 "near lizard" ---- Plesiosaurus

Be a Paleontologist

It is a Brontosaurus.

A Funny Dinosaur Story

Facts

1. He did live in Colorado
2. He lived mainly in the water.
3. He did eat plants.
4. He was 65 feet long.
5. Tyrannosaurus did have short arms and 6 inch teeth.
6. Tyrannosaurus did have a head 5 feet long.
7. His teeth were sharp and serrated.
8. He did eat Parasaurolophuses.
9. Brontosaurus did eat plants growing in the water.

Errors

1. Brontosauruses lived 125 million years ago.
2. Dinosaurs had small brains.
3. Tyrannosaurus and Brontosaurus didn't live at the same time.
4. Tyrannosaurus was only 20 feet tall and 50 feet long.
5. Brontosaurus probably was too big to be quick and leap.
6. Man did not live at the time of Dinosaurs.
7. There were no oak trees at that time.

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Energy Science Activity Pack

These cards have activities dealing with energy. While in the science section, activities include research, art, creative writing, puzzles and games, math and spelling. Your teacher will help you select the activities which will be best for you.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the set of Energy Science Activity Pack cards...You will find it in the Media Resource Center with the call number KS-530-S.

**other easy to get activities as asked for on the cards.

**paper and pencil for some cards.

The work you turn in will be

☒ Work asked for by the cards you select. List here the cards you and your teacher have selected ______________________________

____

____

When you need help, see

Try to finish your study by

Turn in the finished work to 602

SCIENCE
Energy Science Activity Pack

Teacher Information

Grades 3-6; for one student.
Time: One or more period depending on number of cards selected.
Assignment: The cards vary in difficulty and in appropriateness for a particular individual. Keep in mind the child's strengths and needs in helping him select cards.

This pack contains activities in:

- research
- art
- creative writing
- puzzles and games
- mathematics
- spelling

(Cards in each area are arranged in order of increasing difficulty for your convenience)

CONTENTS

D #1 - RESEARCH-MUSCLE POWER
RD #2 - RESEARCH-TEMPERATURES RISING
D #3 - RESEARCH-ENERGY FROM THE WIND
D #4 - RESEARCH-INTERVIEW AN ELECTRICIAN
#5 - RESEARCH-THE BIG WHY AND HOW
D #6 - RESEARCH-CHART 'EM

D #7 - RESEARCH/ART-TRICKY ENERGY TRIOS
D #8 - RESEARCH/ART-ELECTRICITY WHO'S WHO
D #9 - RESEARCH/ART-BELIEVE-IT-OR-NOTS
#10 - RESEARCH/ART-ENERGY FROM THE SUN

11 - ART-ENERGY CUBE
12 - ART-ENERGY COLLAGE
#13 - ART-ENERGY PATCHES
#14 - ART-ENERGY POSTERS
D #15 - ART-FOODS FOR ENERGY
D #16 - ART-ENERGY NOW AND THEN
D #17 - ART-WHAT'S IN THE FUTURE?

D #18 - CREATIVE WRITING-ENERGY ACROSSTIC
D #19 - CREATIVE WRITING-ENERGY POEMS

CARD #20 - CREATIVE WRITING-ENERGY NONSENSE
CARD #21 - CREATIVE WRITING-MY LIFE AS A LIGHT BULB
CARD #22 - CREATIVE WRITING-TURN-ABOUT POEMS
CARD #23 - CREATIVE WRITING-"THE DAY THE POWER FAILED"
CARD #24 - CREATIVE WRITING-WICKY WACKY APPLIANCES
CARD #25 - CREATIVE WRITING-MUSEUM OF ANCIENT HISTORY

CARD #26 - PUZZLES 'N GAMES-ENERGY SCRAMBLE PUZZLE
CARD #27 - PUZZLES 'N GAMES-DEFINITION PUZZLE
CARD #28 - PUZZLES 'N GAMES-ANSWERS(DEFINITION PUZZLE)
CARD #29 - PUZZLES 'N GAMES-MISSING LETTER SCRAMBLE
CARD #30 - PUZZLES 'N GAMES-ENERGY HIDE-OUT PUZZLE
CARD #31 - PUZZLES 'N GAMES-ANSWERS(MISSING LETTER & HIDE-OUT)

CARD #32 - MATHEMATICS-WORD PROBLEMS
CARD #33 - MATHEMATICS-CODE PROBLEMS
CARD #34 - MATHEMATICS-ANSWERS

CARD #35 - VOCABULARY-ENERGY WORDS FOR GOOD SPELLERS

*Cards are arranged in order of increasing difficulty within each area.

IMC Information

Consumables: Duplicate record card 2 to a sheet and cut in half.
Commercial materials: Card set available from The Idea Factory, P.O. Box 3732, Granada Hills CA, 91344, at $4.95.
Processing: Remove record card, teaching suggestions cards, contents cards, and answer cards 28, 31 and 34. Catalog into library.

8/77

ANSWER CARD FOR ENERGY DEFINITION PUZZLE

1. atom
2. cell
3. circuits
4. conductors
5. insulators
6. nucleus
7. generator
8. electrons
9. energy
10. neutrons

ANSWER CARD FOR
MISSING LETTER SCRAMBLE
&
APPLIANCE HIDE-OUT PUZZLE

CARD #29

PUZZLE #1 - stove

PUZZLE #2 - radio

PUZZLE #3 - lamp

CARD #30

1) iron
2) oven
3) stove
4) clock
5) blender
6) toaster
7) projector
8) fan

MATHEMATICS

ANSWER CARD

1. a) 120 students

   b) 47 girls

2. $11.25

3. 1752

4. a) 118

   b) 178

   c) 756

   d) 23

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Grouping Animals: What is a mammal?

This study is a programmed booklet in 10 sections. In sections 1-9 you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer you will not learn very much from this study. When you come to section 10, write the answer to every question on your own paper.

Materials you will need are

*your copy of this contract...Take one from the ICES file.

**a copy of the book...You will find it in the Media Resource Center under the call number KS-599-G.

** notepaper and pencil.

The work you turn in will be

The answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE

Grouping Animals: What is a mammal?

Teacher Information

Grades 5-6; for ~~one~~ 1-4 students

Time: 5 periods

Assignment: The student can respond to sections 1-9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contracts to ask the student to write all the answers as he goes. This may become rather tedious but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commercial material: Book from Coronet, 65 E. South Water Street, Chicago, IL 60601, $1.50.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be How Scientists Think and Work.

This study is a programmed booklet in 10 sections. In sections 1-9, you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study. When you come to section 10, write the answer to every question on your own paper.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the book...You will find it in the Media Resource Center under the call number KS-507-H.
- **note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to 607

SCIENCE
How a Scientist Thinks and Works

Teacher Information

Grades: 6th; for 1-4 students.

Time: 5 periods.

Assignment: The student can respond to sections 1-9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commerical material: Book from Coronet, 65 East South Water Street, Chicago, Illinois 60601, at $1.50.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be How We Forecast the Weather.

This study is a programmed booklet in 10 sections. In sections 1-9, you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study. When you come to section 10, write the answer to every question on your own paper.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the book...You will find it in the Media Resource Center under the call number KS-551.6-H.
- **note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
How we forecast the weather

Teacher Information

Grades: 4-6; for ~~one~~ 1-4 students.

Time: 5 periods.

Assignment: The student can respond to sections 1-9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious, but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commerical material: Book from Coronet, 65 East South Water Street, Chicago, Illinois 60601, at $1.50.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Insects.

In this library research study you will find out about insects. You will do a notebook to show what you have learned and then complete a project which you will choose.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of this study...Check one out from the ICES file.

**8 sheets of lined paper.

**library books and materials...Find what you need in the Media Resource Center.

** Materials for activities will depend upon which activity you choose... Be sure you can get everything you will need before you begin to work.

The work you turn in will be a notebook containing answers to five questions, vocabulary words, and a list of the sources you used. You will also complete a project.

When you need help, see

Check with your teacher before you begin to work on the project you have chosen.

Try to finish your study by

Turn in the finished work to

SCIENCE
Insects

Teacher Information

Grades: 4-5; for one to four students.

Time: 5 periods for the notebook; set time for the activity at the time it is chosen.

IMC Information

Study: Cover and 5 pages.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Introduction to the World of the Microscope.

You will study eleven sets of slides using the Micro-Slide-Viewer. Do only one set each day. Take time to read each folder carefully and to study each slide carefully. Notice every detail you can. If the folder asks a question, see if you can figure out the answer.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the set of slides...You will find it in the Media Resource Center under the call number SL-578-I.
- **a Micro-Slide-Viewer...You will find it in the Media Resource Center.
- **paper and pencil (perhaps colored).

The work you turn in will be a drawing and description. When you have looked at all the slides, choose the set you liked best. In that set, choose one slide to draw. Under your drawing write a description of the slide. Do not just copy from the folder. Use your own words. If you want more information, you can get it in the Media Resource Center.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Introduction to the World of the Microscope

Teacher Information

Grades 5-6; for one student.

Time: 12 to 15 periods.

IMC Information

Commercial material: The Microscope filmstrips (sets 101-111) with microscope model are from Kenneth E. Clouse, Instructional Materials, 333 Quail Hollow Road, Felton, CA 95018, at $25.50.

Processing: Catalog the eleven folders as a single slide set under the title "An Introduction to the World of the Microscope." Do not catalog viewers, but give each a copy number and blue checkout card and pocket.

2/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Laboratory Laughter by Del Alberti and George Mason.

A booklet containing 34 interesting science experiments involving: classifying, observing, measuring, controlling variables, making hypotheses (Examples of experiments are: The Old Maid's Apartment, Follow the Bouncing Ball, A Huff and Puff Experiment). Each experiment requires different materials which are listed for you. Select only experiments for which you can obtain all the needed materials in advance.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**Laboratory Laughter booklet...You will find the booklet in the Media Resource Center under the call number 510-A
**all the materials listed for the experiment you have chosen...Discuss with your teacher whether or not you can get everything you will need before you start.
**some of the experiments require data sheets...If you have chosen one of these experiments copy the data sheet on a piece of paper before you begin the experiment.
**paper and pencil

The work you turn in will be all of the work you have been asked to do in the experiment named______________________________

____

When you need help, see

Try to finish your study by 615

Turn in the finished work to

SCIENCE

Laboratory Laughter by Del Alberti and George Mason

Teacher Information

Grades 5 and 6

For one student

Time: Two to ten or more periods depending on which experiment is selected.

Assignment: Since the materials vary greatly from one experiment to another either the teacher or student may have to do a lot of "scrounging". To avoid disappointment discuss carefully with the student the selection of an experiment. Do not allow a student to start an experiment unless all needed materials have been assembled in advance. (Don't panic! Some need no more than paper, pencil and an easily available setting). Write the name of the experiment on the front of the students contract.

IMC Information

Commercial material: Laboratory Laughter booklet by Del Alberti and George Mason is available from Activity Resources Company, Inc., P. O. Box 4875, Hayward, California 94540, 278-8178.

Processing: Catalog booklet into library.

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Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Learn the Morse Code

Using a telegraph kit, a record to which you will listen, you will learn about the history and use of the Morse Code as well as learn to use the Morse Code to talk with another person using two connected telegraph keys. This may start you on a career in the field of communications.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a telegraph kit...Check this out of the Media Resource Center. It will be located under the call number KS-621.384-T.
**a phonograph and listening center with which to listen to the record.

The work you turn in will be

☐ you will demonstrate to the teacher or MGM resource aide that you are able to send and receive messages in Morse Code using a telegraph key.

When you need help, see

Try to finish your study by

Turn in the finished work to

Learn the Morse Code

Teacher Information

Grades 4-6; for two students.

Time: This will vary depending on the students ability to learn the Morse Code.

Assignment: The students will need a location to practice using the telegraph keys where they will not disturb other students who are working. To complete the study satisfactorily, require that a student demonstrate his ability both to send and receive a message in Morse Code. When finished you might suggest that the students use the Media Resource Center to locate plans for building their own telegraph keys. They are rather simple to make and will teach the students just HOW electric current enables them to send messages.

IMC Information

Commercial material: Telegraph Kit from Ideal School Supply Co., Oaks Lawn IL, 60453, at $8.95. Also available from Warren's Educational Supplies, 1000 Detroit Ave., Concord Ca., 94518, at the same price.

Processing: Catalog kit into library.

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Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Look at Annette, by Marian Walter.

You will use a mirror to follow the directions given in the book. The mirror should be in a pocket at the back of the book.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the book...You will find it in the Media Resource Center under the call number 535-W.
- **paper, pencil and crayons.
- **a mirror...You should find one in the back of the book.

The work you turn in will be a picture of Annette to use with the mirror. Under the picture, tell someone what to do with the mirror.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE

Look at Annette, by Marian Walter

Teacher Information

Grades: 2-4; for one or two students.

Time: 1 period.

IMC Information

Commercial material: Book from M. Evans, 216 East 49th Street, New York, NY, 10017, $3.95.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Make a Bigger Puddle, Make a Smaller Worm, by Marian Walter.

You will use a mirror to follow the directions given in the book. The mirror should be in a pocket at the back of the book.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the book...You will find it in the Media Resource Center under the call number 535-W.
- **paper, pencil and crayons.
- **a mirror...You should find one in the back of the book.

The work you turn in will be a picture that can be used with a mirror. Under the picture, write how the mirror should be used.

When you need help, see

621

Try to finish your study by

Turn in the finished work to

SCIENCE

Make a Bigger Puddle, Make a Smaller Worm

Teacher Information

Grades: 2-4; for one to two students.

Time: 1 period.

IMC Information

Commercial material: Book from M. Evans, 216 E. 49th Street, New York, NY, 10017, $3.95.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Make a tool.

You will choose a problem from the 10 activity cards in the set. You will create a tool to solve the problem and show it to your teacher. Perhaps you will also have a chance to share your tool with your class.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**the Make a Tool task cards...You will find them in the Media Resource Center under the call number KS-621.9-M.

**materials for your tool will vary...You will have to decide what to use to solve the problem.

The work you turn in will be your finished tool. Be ready to show your teacher how your tool works.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Make a Tool

Teacher Information

Grades: 3-6; for one or two students.

Time: 1-3 periods per card.

Assignment: This study may be done more than once using a different card each time.

IMC Information

Commercial material: District made task cards.

Processing: Catalog task cards into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Microscope I - History and parts.

You will read the study at the same time that you listen to a tape recording. In this study you will learn about the history of the microscope, its parts and how we find magnifying power of lenses. You will also choose an activity. (If you would rather do the study without the tape recording you may do so.)

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of this study...Check one out from the ICES file.

**the tape recording...You will find it in the Media Resource Center under the call number RT-578-M.

The work you turn in will be your Quest Project chosen from the suggestions on pages 1 and 2 of the study.

When you need help, see

Check with your teacher before you begin the Quest Project you have chosen.

Try to finish your study by

Turn in the finished work to

SCIENCE
Microscope I - History and parts

Teacher Information

Grades: 4-6; for one to five students.

Time: 1-2 periods for tape study. Time for activities varies and should be set when the activity is selected.

IMC Information

Study: Cover and 12 pages.

Additional material: District made tape cassette.

Processing: Catalog tape cassette into library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Microscope II - Learning how to use the microscope.

(If you would rather do the study just reading it without the tape, you may do so.)

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **a microscope and other materials listed in the study.
- **the tape recording...You will find it in the Media Resource Center under the call number RT 578-M.
- **Be sure that you will be able to get all the materials you need before you begin this study.
- **Check with your teacher to see where you should work.

The work you turn in will be drawings of three different things you have looked at under the microscope.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Microscope II - Learning how to use the microscope

Teacher Information

Grades: 4-6; for one to five students.

Time: 1-2 periods.

Assignment: Because the student is working with a microscope, this study may require some supervision.

IMC Information

Study: Cover and 9 pages.

Additional material: District made tape cassette.

Processing: Catalog tape cassette into the library.

Rev. 4/76

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Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Microscope III - Cells.

In this study you will learn about the structure and the function of cells. Plant cells, protozoa, classification--genus and species, and making of a hay infusion. (If you would rather do the study just reading it without the tape, you may do so.)

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **a tape recording...You will find it in the Media Resource Center under the call number RT-578-M.
- **a microscope and other materials listed in the study...Be sure that you will be able to get all the materials you need before you begin this study.
- **Check with your teacher to see where you should work.

The work you turn in will be at least 10 pictures of different things you have looked at under the microscope.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Microscope III - Cells

Teacher Information

Grades: 4-6; for 1 to 5 students.

Time: 2-3 periods.

Assignment: Because the student is working with a microscope, this study may require some supervision.

IMC Information

Study: Cover and 10 pages.

Additional material: District made tape cassette.

Processing: Catalog tape cassette into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Our Solar System.

This study is a programmed booklet in 10 sections. In sections 1 through 9 you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study. When you come to section 10, write the answer to every question on your own paper.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of the book...You will find it in the Media Resource Center under the call number KS 523.2-O.

**note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Our Solar System

Teacher Information

Grades: 6; for ~~one~~ 1-4 students.

Time: 5 periods.

Assignment: The student can respond to sections 1 through 9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious, but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commercial material: Book from Coronet, 65 East South Water Street, Chicago, Illinois, 60601 at $1.50 each.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Plants and Animals.

You will choose one card to work on. Think about the supplies needed and be sure you will be able to get them before you begin to work. When you have finished, color in the number of this card on the record card for Plants and Animals. Do not remove the card you are working on from the set; copy any information you think you will need. Put the numbers of the cards you work on under "Work Done" on the back of your copy of this contract.

Materials you will need are

**your copy of this contract...You will find it in the ICES file.
**The Plants and Animals task cards...You will find them in the Media Resource Center under the call number KS-574-P.
**pencil and paper or other supplies as needed to do the card... Be sure you will be able to get all supplies before you begin.
**your record card for Plants and Animals...If you do more than one assignment from Plants and Animals, always show what you do on this same record card...The records are in the ICES file.

The work you turn in will be whatever activity the card tells you to do. Answer cards 7, 30 and 33 have been removed; your teacher has the answers.

You will need to think of your own work for the two vocabulary cards. Perhaps you would like to make a crossword puzzle, or a notebook of sentences or pictures. You might want to act out some of the words in front of your class and see if they can tell which word you are showing them.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Plants and Animals

Teacher Information

Grades 3-5; for one student

Time: One period on up, depending on the project. It might be best to select the task card and then set the target date.

Assignment: Following are the categories of task cards and the number of cards available in each. Cards become more difficult within each category. One card is done at a time.

Research	6
Research/Art	4
Art	7
Creative writing	8
Puzzles	3
Math	2
Vocabulary	2

You may want to specify a particular category. This study may be assigned more than once. The student will have a record card on which he will color in the numbers of the cards he has completed.

IMC Information

Consumable: Student record card (2 printed to a sheet; cut apart before sending to schools).

Additional teacher information: Answer page, two sides.

Commercial material: Task cards from The Idea Factory, P. O. Box 3732, Granada Hills, CA 91344 at $4.95.

Processing: Remove record card, "Share with a friend" order card, "Teaching Suggestions" card and cards 7, 30 and 33 from each pack. Process into the library.

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Answer Page

PLANTS AND ANIMALS **PUZZLES 'N GAMES** **30**

ANSWER CARD FOR WORD DETECTIVE

[illegible]
[illegible]
all
amp
amps
and
animal
animals
ant
ants
dam
dams
dill
dim
din
dip
dips
ill
ills
imp
imps
inn
inns
lamp
lamps
land
lands
lap
laps
last
lasts
lilt
limp
limps
lisp
lisps
mall
malls
malt
malts
man
map
maps
mast
masts
mill
mills
mind
minds
mint
mints
miss
mist
nail
nails
nap
naps
nasal
pain
pains
pal
pals
palm
palms
pan
pans
panda
pandas
pant
pants
pass
pat
pats
pill
pills
pint
pints
pit
pits
plan
plans
plant
plants
sad
salt
salts
sand
sands
sat
sin
sins
sip
sips
sit
sits
slam
slams
slim
snap
snaps
span
spans
spat
spats
stall
stalls
stamp
stamps
stand
stands
still
stills
tall
tan
tans
tip
tips

CAN YOU FIND MORE??

33

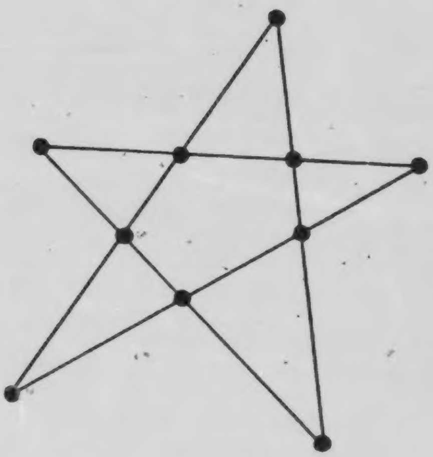
PLANTS AND ANIMALS **MATHEMATICS**

ANSWER CARD

CARD #31

1. $5.53
2. a. $18.45
   b. $1.55
3. 72 square feet
4. 250 pounds
5. 300,000 pounds
6. 60 barrels

CARD #32



PLANTS AND ANIMALS

Answers

7

ANSWERS TO WHICH FAMILY???

GRASS FAMILY	LILY FAMILY	GOURD FAMILY
1. corn	1. onion	1. gourd
2. wheat	2. garlic	2. pumpkin
3. oats	3. tulip	3. squash
4. bamboo	4. yucca	4. cucumber
5. sugar cane	5. Easter lily	5. watermelon
6. bluegrass	6. hyacinth	6. mushmelon

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Predator, the Food Chain Game.

You will play

☐ Timed Version
☐ Play-Out Version
☐ Green World Game
☐ Solitaire
☐ Concentration
☐ Rummy

Do the game ______ times.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the Predator game. You will find it in the Media Resource Center under the call number GA-591.5-P.

**paper and pencil.

The work you turn in will be this contract. On the back show the people you played the game with and whether you won or lost. Also do one chart or diagram as checked below:

☐ A classification chart of the animals and plants in the game. You decide on the classifications.
☐ A food web showing at least ten animals and plants.
☐ An energy web showing at least ten animals and plants.
☐ A chart or diagram of your own idea from the game.

When you need help, see

Try to finish your study by

637

Turn in the finished work to

SCIENCE
Predator, the Food Chain Game

Teacher Information

Grades 5-6; for 3-6 students (except solitaire, for one).

Time: One period per game plus one period to do the written work.

Assignment: Indicate which game is to be played and how many times. Also check which chart or diagram is to be done. (You may decide not to require a chart or diagram.)

IMC Information

Commercial material: The game is from Ampersand Press, Inc., 2603 Grove St., Oakland, CA 94612, at $4.00.

Processing: Catalog the game into the library. Leave the instructions with the game.

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Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Weather, Climate and Man.

This study consists of eight tape cassettes with worksheets. Do the tape or tapes checked below.

- ☐ Earth and Sun (RT-525-E)
- ☐ Controls of weather and climate (RT-551.6-C)
- ☐ Weather instruments and forecasting (RT-551.6-W)
- ☐ World climate patterns (RT-551.6-W)
- ☐ United States weather patterns (RT-551.6-U)
- ☐ Population distribution and density (RT-301.32-P)
- ☐ Economic patterns of man (RT-330.9-E)
- ☐ Inquiry into local communities -(RT-551.6-I)

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **the tape cassette with worksheet...You will find each tape in the Media Resource Center under the call number indicated above.
- **a plastic cover with china marking pencil OR tracing paper with a pencil OR a copy of the worksheet that you can write on directly. (Check with your teacher.)
- **tape cassette player.

The work you turn in will be your completed worksheets.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Weather, Climate and Man

Teacher Information

Grades: 4-6; for one to five students.

Time: 1 period for each tape.

Assignment: Be sure to check which tape or tapes the student is to complete. This series of tapes should be done in sequence. Teacher's guides with follow-up activities are available in the Media Resource Center.

IMC Information

Commercial material: 8 tape cassettes, nos. C-3101 through C-3108, from Coronet, 65 East South Water Street, Chicago, Illinois 60601, at $9.95 each. Additional worksheets available at $2.20 per package of 30.

Processing: Catalog tapes into the library. Staple one worksheet into teacher's guide, which should be filed separately in the library. Put 5 copies of worksheet into plastic sleeves. Remaining worksheets may be put into teacher's binders or kept in the ICES file as spares at the school.

Rev. 4/76

Independent Curriculum Enrichment Studies

SCIENCE

This study is for

Date to begin is

Your study will be Your Heart and Circulation.

This study is a programmed booklet in 10 sections. In sections 1 through 9 you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study! When you come to section 10, write the answer to every question on you own paper.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the book...You will find it in the Media Resource Center under the call number KS 612-Y.
- **note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SCIENCE
Your Heart and Circulation

Teacher Information

Grades: 4-6; for ~~one~~ 1-4 students

Time: 5 periods.

Assignment: The student can respond to sections 1 through 9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commercial material: Book from Coronet, 65 East South Water Street, Chicago, Illinois, 60601, at $1.50 each.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Amos Fortune: Free Man By Elizabeth Yates

The book, Amos Fortune: Free Man, is a narrative biography of an African prince who was captured at the age of twelve by merciless slave traders and brought to the eastern shores of America as a slave. The African prince, named Amos by his master, eventually gained his freedom and became a public benefactor in the 1700's. Amos not only purchased his own freedom, but the freedom of others as well.

This story is based on the life of an actual person who lived from 1710 to 1801, and is buried beside his wife in a little cemetery on a hilltop in Jaffrey, New Hampshire.

You will read the book chapter by chapter to locate answers to discussion questions which will guide your reading. At the end of each chapter you will conference with your teacher or MGM resource aide to discuss the questions. When you have completed the book you will write answers to guiding questions about the development of Amos' character. You will do Related Independent Activities numbers 1 and 2 and at least one other activity of your choice.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.

**a copy of this study . . . Obtain one from the ICES file.

**a copy of the book . . . Check one out of the Media Resource Center. It will be found under the call number 921-FOR

**paper and pencil

**a world map for activity number 1 . . . Obtain one from the ICES file

**a United States map for activity number 2 . . . Take one from the ICES file.

The work you turn in will be

☐ your answers to the character development questions
☐ your completed maps for activities 1 and 2
☐ your work for the activities you select. I have chosen activity numbers ____________

When you need help, see

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES

Amos Fortune: Free Man by Elizabeth Yates

Teacher Information

Grades 4 and 5 for 1 to 6 students

Time: 10 to 15 periods for basic study -- additional periods for activities.

Assignment: This is one of several studies designed for a small group of students which require more of the teachers time than do most ICES studies in that they require the teacher (or resource aide) to meet periodically with the students for discussion and review of their work as they are doing the studies. These may be used for some students as an intermediate step toward introducing them to studies on which they must work entirely independently.

If you cannot work the time for the required meetings into your schedule do not assign this study.

It is suggested the teacher be somewhat familiar with this book before assigning this study. Be sure to tell the students to be sure to make an appointment with the teacher or MGM resource aide prior to reading each chapter. While a single student can do this study it is recommended that a group of 4 to 6 students do it at the same time. The teacher will find that conference time will be more profitable and the student-student as well as teacher-students interaction will allow students to get more out of the study than if a single student does the study by himself. At each conference be sure to discuss the new words the children have listed. Have them use these words in the discussion of the chapter. Biographical information on the author is included for teacher's use in the initial conference with the students.

IMC Information

Study: Cover and 8 pages

Additional Teacher Information: Biographical information on the author

Consumables: World Map
United States Map

Commercial materials: paperback book from Dell Publishing Company, Inc.
1 Dag Hammarskjold Plaza
245 E. 47th Street
New York, N.Y. 10017

Processing: Catalog book into library.

BIOGRAPHICAL INFORMATION ON THE AUTHOR

Elizabeth Yates was born in Buffalo, New York and attended the Franklin School there from kindergarten through twelfth grade. She was next to the youngest of seven children. The most memorable days of her childhoos and youth were the long summers spent on her father's many-acred farm in the rich rolling country south of Buffalo. Coming from a large family, there were always playmates for her as well as horses and dogs; and there were always tasks such as gardening, butter-making, and caring for the animals.

Elizabeth's home was filled with books, and reading alone or being read to by her mother was part of her family life. She often went rambling through the countryside on her horse and was never lonely for there was the horse to talk with and in her head she wrote stories. On a rainy day Elizabeth would climb the ladder to an unused pigeon loft that was her own secret place and write down in a series of copy books all that she had been thinking.

At twenty-three Elizabeth married William McGreal, an American whose business was in London, and there she kept writing and spending long hours in the British Museum and London Library. In 1938, her first book was published. It seemed for her the culmination of a ten years' apprenticeship; years in which she had been doing book reviewing, article writing, interviewing, editorial work, and some ghost writing.

While living in London, Elizabeth Yates spent many months traveling in the British Isles, France, Germany, Switzerland, Spain, Iceland, and such travel was highlighted by adventures in mountain climbing and in meeting interesting people. In 1939, Elizabeth and her husband returned to the United States to live in Peterborough, New Hampshire.

In 1943, Elizabeth Yates won a New York Herald Tribune Spring Festival Award for Patterns on the Wall, and again, in 1950, for Amos Fortune: Free Man. In 1951, the latter title was also awarded the American Library Association's Newbery Medal as "the most distinguished contribution to American literature for children" of the previous year.

Elizabeth Yates has also written a number of books for adults. She asserts that reading is still her joy--books about nature, biography, and philosophy.

T3

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Career Awareness

This study will help you to learn about and think about yourself. You will think about your present likes and skills and about new skills you may wish or need to learn. You will learn about making choices about earning and spending money. Through meeting and learning about the USO's (Unidentified Space Objects) you will at the same time start thinking and learning about yourself.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of the booklet Career Awareness...You will find it in the Media Resource Center with the call number 155.2-W.
**a copy of the UNIDENTIFIED SPACE OBJECT SHEET... Take one from the envelope marked Unifentified Space Object Sheets in the ICES file.
**lined paper
**pencil

The work you turn in will be

☒ your completed work for the career awareness booklet.

☒ your Unidentified Space Object sheet.

When you need help, see

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES
Career Awareness

Teacher Information

Grades 4-5; for one to six students.

Time: 15-20 periods.

Assignment: If more than three children are working on this study at the same time two students will have to share a booklet since each school has only three copies. Instruct the students to write all of their answers on lined paper and to not write in the booklet. Tell the students that their USO sheets are for use with lessons 1 and 3.

This unit on career awareness is an attempt to raise children's awareness of the relevancy of education. Lessons are designed to stimulate thinking and evoke a variety of responses already within the students scope of knowledge. A very complete teachers manual is available. It contains good discussion questions for use if a small group is doing the study together. Each lesson in Career Awareness introduces a new career awareness concept. These are listed on the following page.

IMC Information

Additional Teacher Information: List of concepts immediately following teachers sheet.

Commercial Material: Career Awareness student booklets by Creative Teaching Press are available from Educational Exchange, 600 35th Ave., San Francisco, CA 94121, at a cost of $1.95 each. Teachers editions are available at $4.95.

Processing: Catalog into library.

2/78

CAREER EDUCATION CONCEPTS

1. People who can see themselves are better able to see others.
2. People are different from one another.
3. People use their senses to tell them what they need.
4. People make better choices when they know their needs.
5. People want things they don't need.
6. People have different needs and wants.
7. People make better choices when they realize and use what they have learned about needs and wants.
8. People make choices on the basis of importance.
9. People learn from choices they make.
10. People make choices about goods they buy.
11. People make better choices when they know the cost of goods.
12. People make choices between spending and saving.
13. People spend money to buy services they need and want.
14. People often pay for some services when they buy goods.
15. People make better choices when they know what they have learned about goods and services.
16. People need skills to do a job.
17. People have skills they may not know about.
18. People learn skills everywhere.
19. People depend on others for some of their wants and needs.
20. People make better choices when they know their capabilities.
21. People make better choices when they know their limitations.
22. People make better choices when they know which limitations they can change.
23. People have opportunities to make choices about limitations they want to change.
24. People need enjoyment in their lives.
25. People sometimes earn money by doing things they enjoy.
26. People are living a career every day of their lives by satisfying their needs.
27. People often change their careers.
28. People make better choices about their careers when they are prepared to make changes.
29. People are able to know other people better when they know themselves.
30. People are able to make the best choices about their lives when they know a lot about themselves and others.

Independent Curriculum Enrichment Studies

~~LITERATURE~~ Soc Stud.

This study is for

Date to begin is

Your study will be French and Indian War and Revolution

You will choose a fiction book to read from the list at the end of the study.

Write which book you have chosen here:

Title________________________________ Author____________________________

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **the book you choose to read...If you find it in the Media Resource Center, be sure to check it out.
- **a vocabulary bookmark if checked...Take one from the ICES file.
- **a Time Line (U.S. 1755-1790)...Take one from the ICES file.
- **if checked below, a Character Chart ...Take one from the ICES file.
- **materials for activities vary...Be sure you can get everything you need before you begin your activity.

The work you turn in will be

☒ Time Line Chart
☐ Character Chart #4
☐ Bookmark (list of new words)
☒ Activity number____.

When you need help, see

Be sure to confer with a teacher before you begin your activity.

Try to finish your study by

650

Turn in the finished work to

SOCIAL STUDIES
~~LITERATURE~~

French and Indian War and Revolution

Teacher Information

Grades 4-6; for one student
Time: Approximately 10 to 15 periods.
Assignment: Be sure to check the boxes on the contract if you want the student to do a character chart and/or a bookmark (vocabulary). The student is directed to confer with a teacher before beginning his chosen activity. This study may be assigned more than once, selecting a different book each time.

IMC Information

Study: Cover and 5 pages.

Consumable material: Time Line Chart, Bookmark, Character Chart #4.

Commercial material: The student will probably need to go to the library to get his book.

12/76

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Fun With Mapping Skills

A set of 44 task cards with activities related to mapping. Select as many cards as you wish or do the whole set. Where possible write your answers on a separate sheet of paper. Where not possible, do your work on a sheet of acetate placed over the card. Use a grease pencil or marking pen. Have your answers checked before going on to another card.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a set of Fun With Mapping Skills cards...Get a set from the Media Resource Center under the call number KS-526.8-F.
- **acetate sheet and grease pencil or marking pen.
- **paper and pencil.

The work you turn in will be

☐ your answers to cards numbers ____________________
(list numbers here)

____

____

☐ your answers to the whole set of cards

When you need help, see

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES
Fun With Mapping Skills

Teacher Information

Grades 2-3; for one student.

Time: One to many periods depending on the number of cards assigned.

Assignment: Be sure to assign cards appropriate to the age level and ability of the student.

IMC Information

Consumable: Score card.

Commercial material: Wise Owl Fun With Mapping Skills (set #210) is available from Warren's Educational Supplies, 1000 Detroit Ave. Concord CA, 94518, at $4.95 per set.

Processing: Remove mini-award card, advertising card and title card. Xerox score card 2 to a sheet and cut in half. Catalog set of cards into library.

8/77

This study is for

Date to begin is

Your study will be

Johnny Tremaine by Esther Forbes

An exciting story which takes place during the American Revolution. This is a fictional story which is based on historical facts. Characters in the story are both fictional and real. Students who read this book will finish with a much better understanding of what this war was all about. You may do this study by yourself but you will probably enjoy it more and learn more if a group of two to five of you do it together so that you can discuss the questions and arrive at "group answers" to them. A small group can also divide up the task of looking up the many "unique" words which may seem "foreign" or "strange" to you. You will answer questions about each chapter and meet with your teacher or resource aide to discuss each chapter before going on to the next. You will also do a Real or Imaginary Character List, a Johnny Tremaine Character Study and one or more activity of your choice.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file

**a copy of this study . . . Take one from the ICES file

**a copy of the book . . . Check one out of the Media Resource Center. It is cataloged under the call number FOR.

**a Real or Imaginary Character list . . . Take one from the ICES file.

**a Johnny Tremaine Character Study . . . Take one from the ICES file

**paper and pencil

**other materials as needed for the activity you choose.

The work you turn in will be

☐ your answers to the chapter questions. These may be "group answers" if a small group is doing this study

☐ your Real or Imaginary Character List

☐ your Johnny Tremaine Character Study

☐ Activity numbers ____________

When you need help, see

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES

Johnny Tremaine by Esther Forbes

Teacher Information

Grades 5 and 6 for 1 to 5 students

Time: 20 or more periods depending on activities selected

Assignment: This is one of several studies designed primarily for a small group of students which require more of the teacher's time than do most ICES studies in that they require the teacher (or resource aide) to meet periodically with the students for discussion and review of their work as they are doing the studies. These may be used for some students as an intermediate step toward introducing them to studies on which they must work entirely independently.

If you cannot work the time for the required meetings into your schedule do not assign this study. It is suggested the teacher be somewhat familiar with the books before assigning this study. Be sure to tell the students to be sure to make an appointment with the teacher or MGM resource aide prior to reading each chapter. If students are doing this study in a group arrange for a place for them to discuss each chapter among themselves when they have finished reading. Peer discuss adds a great deal to this study. The conferences with the teacher or aide are most important to this study. They are needed to sometimes clarify what is happening, why Johnny acts as he does and to review the tremendous new vocabulary load this book has for most students. Be sure to provide an adequate dictionary. An ordinary classroom dictionary will be totally inadequate for this study.

For teacher or aides who have a group working on this study some general questions for discussion and discussion questions you may use for the conferences after each chapter are included. A Teacher's Bibliography is provided so that in case students get really "wrapped up" in the Revolutionary War period they may be guided to other appropriate sources.

IMC Information

Study: Cover and 19 pages

Additional Teacher Information: General questions
Group study questions
Paul Revere's Ride
Teacher Bibliography
Notes about the Author

Consumables: Johnny Tremaine Character Study
Real or Imaginary Character List

Commercial materials: book from Houghton Mifflin Company
777 California Avenue
Palo Alto, CA 94304
Price: $6.95

Processing: Catalog book into the library.

6/77

SOCIAL STUDIES

Johnny Tremaine by Esther Forbes

N[illegible]es About the Author

FORBES, Esther 1891-1967

"The historical novelist is like God himself so far as knowing his people is concerned," wrote Miss Forbes, "He knows the people in his book really better than he can actually know any one in life. He knows exactly why they fall in love or can't stand being snubbed. He works from the inside out."

The New York Times regarded her as "a novelist who wrote like a historian and a historian who wrote like a novelist. (She) achieved a reputation as one of the most exciting authors on the Revolutionary period. With Johnny Tremaine she proved her conviction that children can grasp matrue writing much better than some writers and publishers believe."

GROUP DISCUSSION QUESTIONS

Chapter I

1. Discuss with the group whether this book is factual or fictional.
2. Read to them Paul Revere's Ride by Henry Wadsworth Longfellow. (A copy is included.)

Chapter II

1. Discuss the role of craftsmen and their apprentice system at this time in history.

Chapter III

1. Discuss the different levels of craftsmen in relation to why Johnny did not want to become a "soap boiler," "leather-dresser" or "ropemaker."

2. Did Johnny have an alternative to going to visit Merchant Lyte? Why or why not?

Chapter IV

1. Discuss the evidence in this chapter of things about the Lyte family that might make you dislike them.

Chapter V

1. What things happened at the Boston Observer to make Johnny feel "at home"?

Chapter VI

1. Discuss whether you think a revolution might begin today in the same non-violent tea-party way as it occurred in this period in history.

Chapter VII

1. Discuss whether you feel the English were justified in the action they took against Boston.

GENERAL QUESTIONS (before reading the book)

1. During what period in American history does this story take place?

   What were the dates of this period?

   Find what was happening other places in the world at this time.

2. What does the term "Lobster Backs" mean?

3. What is the difference between England and Great Britain?

4. Who was the King of England during the Revolutionary War? What were the dates of his reign?

5. Who was the English general at the time of Paul Revere's ride? Who replaced him?

6. What was the date of Paul Revere's ride?

7. What was the Stamp Act and when was it passed? By whom?

8. What were the reasons the Americans revolted against the British? Were they justified in your view? How else could this problem have been solved? Can you think of some present-day things which could cause people to revolt? List them. (use the back of this page)

Chapter VIII

1. Discuss Rob's quest for a musket. Why was it so important to him?

Chapter IX

1. Which person do you feel was most important to the American Revolution, Paul Revere, Sam Adams or Doctor Warren? Why?

Chapter X

1. Discuss the character of Dove and why he treated Johnny as he did and why you think he became a Tory.

Chapter XI

1. Why did the Minutemen believe they would have a chance in their fight against the better equipped English army?

2. Why do you think Miss Lavinia told Johnny about his mother and his place in her family.

Chapter XII

1. What characteristic did Johnny have that made it possible for him to move among the English troups?

2. Do you think the men who died in this war died in vain or for a cause?

Paul Revere's Ride

by HENRY WADSWORTH LONGFELLOW

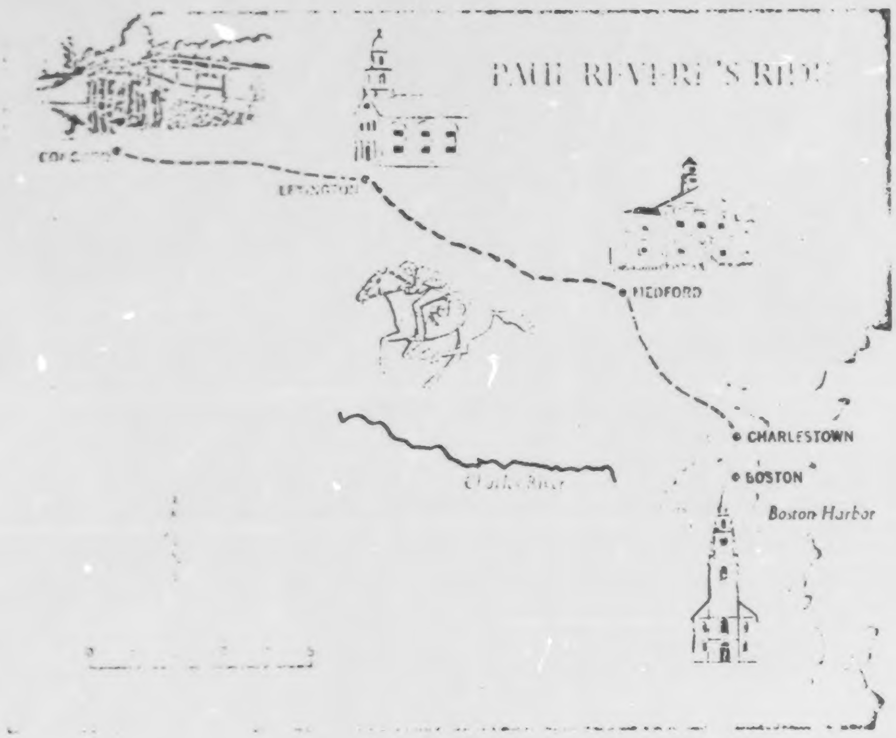
[1] Listen, my children, and you shall hear
Of the midnight ride of Paul Revere,
On the eighteenth of April, in seventy-five;
Hardly a man is now alive
Who remembers that famous day and year.

[2] He said to his friend "If the British march
By land or sea from the town tonight,
Hang a lantern aloft in the belfry arch
Of the North Church tower, as a signal light–
One, if by land, and two, if by sea;
And I on the opposite shore will be,
Ready to ride and spread the alarm
Through every Middlesex village and farm,
For the country folk to be up and to arm."

[3] Then he said "Good night!" and with muffled oar
Silently rowed to the Charlestown shore,
Just as the moon rose over the bay,
Where, swinging wide at her moorings, lay
The *Somerset*, British man-of-war:
A phantom ship, with each mast and spar
Across the moon, like a prison bar,
And a huge black hulk, that was magnified
By its own reflection in the tide.

[4] Meanwhile his friend, through alley and street,
Wanders and watches with eager ears,
Till in the silence around him he hears
The muster of men at the barrack door,

The sound of arms, and the tramp of feet,
And the measured tread of the grenadiers
Marching down to their boats on the shore.


PAUL REVERE'S RIDE
CONCORD
LEXINGTON
MEDFORD
CHARLESTOWN
BOSTON
Boston Harbor
Charles River

[5] Then he climbed the tower of the Old North
Church
By the wooden stairs, with stealthy tread,
To the belfry chamber overhead,
And startled the pigeons from their perch
On the somber rafters, that round him made
Masses and moving shapes of shade—
By the trembling ladder, steep and tall,
To the highest window in the wall,
Where he paused to listen and look down
A moment on the roofs of the town,
And the moonlight flowing over all.

[6] Beneath, in the churchyard, lay the dead,
In their night encampment on the hill,
Wrapped in silence so deep and still
That he could hear, like a sentinel's tread,
The watchful night wind, as it went
Creeping along from tent to tent,
And seeming to whisper, "All is well!"
A moment only he feels the spell
Of the place and the hour, the secret dread
Of the lonely belfry and the dead;

For suddenly all his thoughts are bent
On a shadowy something far away,
Where the river widens to meet the bay—
A line of black, that bends and floats
On the rising tide, like a bridge of boats.

[7] Meanwhile, impatient to mount and ride,
Booted and spurred, with a heavy stride
On the opposite shore walked Paul Revere.
Now he patted his horse's side,
Now gazed at the landscape far and near,
Then, impetuous, stamped the earth,
And turned and tightened his saddle girth;
But mostly he watched with eager search
The belfry tower of the Old North Church,
As it rose above the graves on the hill,
Lonely and spectral and somber and still.
And lo! as he looks, on the belfry's height
A glimmer, and then a gleam of light.
He springs to the saddle, the bridle he turns,
But lingers and gazes, till full on his sight
A second lamp in the belfry burns!

[8] A hurry of hoofs in a village street,
A shape in the moonlight, a bulk in the dark,
And beneath, from the pebbles, in passing, a spark
Struck out by a steed flying fearless and fleet:
That was all! And yet, through the gloom and the
light,
The fate of a nation was riding that night;
And the spark struck out by that steed, in his
flight,
Kindled the land into flame with its heat.

[9] He has left the village and mounted the steep,
And beneath him, tranquil and broad and deep,
Is the Mystic, meeting the ocean tides;
And under the alders that skirt its edge,
Now soft on the sand, now loud on the ledge,
Is heard the tramp of his steed as he rides.

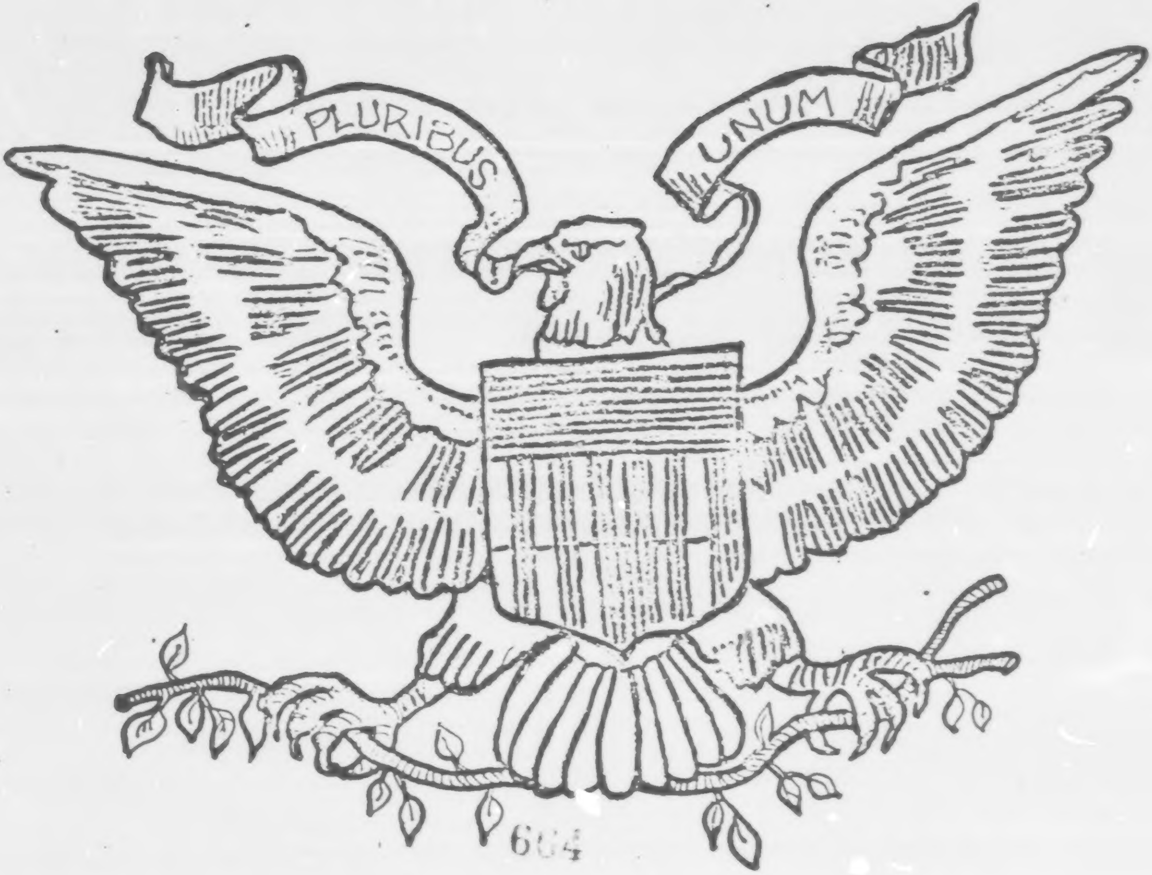
[10] It was twelve by the village clock,
When he crossed the bridge into Medford town.
He heard the crowing of the cock,
And the barking of the farmer's dog,
And felt the damp of the river fog
That rises after the sun goes down.

[11] It was one by the village clock,
When he galloped into Lexington.
He saw the gilded weathercock
Swim in the moonlight as he passed,
And the meetinghouse windows, blank and bare,
Gaze at him with a spectral glare,
As if they already stood aghast
At the bloody work they would look upon.

[12] It was two by the village clock,
When he came to the bridge in Concord town.
He heard the bleating of the flock,
And the twitter of birds among the trees,
And felt the breath of the morning breeze
Blowing over the meadows brown.
And one was safe and asleep in his bed,
Who at the bridge would be first to fall,
Who that day would be lying dead,
Pierced by a British musket ball.

[13] You know the rest. In the books you have read
How the British Regulars fired and fled—
How the farmers gave them ball for ball,
From behind each fence and farmyard wall,
Chasing the Redcoats down the lane,
Then crossing the fields to emerge again
Under the trees at the turn of the road,
And only pausing to fire and load:

[14] So through the night rode Paul Revere;
And so through the night went his cry of alarm
To every Middlesex village and farm—
A cry of defiance and not of fear—
A voice in the darkness, a knock at the door,
And a word that shall echo forevermore!
For, borne on the night wind of the Past,
Through all our history, to the last,
In the hour of darkness and peril and need,
The people will waken and listen to hear
The hurrying hoofbeats of that steed,
And the midnight message of Paul Revere.



TEACHER'S BIBLIOGRAPHY

1. Paul Revere and the World He Lived In, Esther Forbes. (factual)
2. Mr. Revere and I, Robert Lawson.
3. Ben and Me, Robert Lawson.
4. The Story of Our Country, Brenda Pfaehler. (Calif. State Text - factual)
5. Poor Richard in France, F. Monjo.
6. Tallmadge's Terry, S.G. Mantel
7. Rebecca's War, Ann Finlayson.
8. John Treegate's Musket, Leonard Wibberley.
9. Early Thunder, Jean Fritz.
10. The Mystery of the Old Musket, Patience Zawadsky.
11. The Reb and the Redcoats, Constance Savery.
12. America's Paul Revere, Esther Forbes.(factual)
13. The American Revolution, Bruce Lancaster (factual)
14. Benjamin Franklin, Enid La Monte Meadowcroft.
15. Treasure of the Revolution, Mary Virginia Fox.
16. The American Revolution, Bruce Bliven, Jr. (factual)
17. John Paul Jones, Iris Vinton.
18. They Helped Make America, Fan Kissen. (a book of plays about the lives of famous Americans)

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Latitude and Longitude.

This study is a programmed booklet in 10 sections. In sections 1 through 9 you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study! When you come to section 10, write the answer to every question on your own paper.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of the book...You will find it in the Media Resource Center under the call number KS 526.8-L.

**note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES
Latitude and Longitude

Teacher Information

Grades: 5-6; for ~~one~~ 1-4 students.

Time: 5 periods.

Assignment: The student can respond to sections 1 through 9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may want to change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious, but may be necessary for some students. Works effectively when three or four students do the program together reading aloud.

IMC Information

Commercial material: Book from Coronet, 65 East South Water Street, Chicago, Illinois, 60601, at $1.50 each.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Maps and Globes.

In this library research study you will use library books and audio-visual materials to find out about maps and globes. You will complete a notebook containing answers to study questions, vocabulary, and a list of the sources you used. You will also choose a project.

Materials you will need are:

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **six sheets of lined paper.
- **library books and audio-visual materials.
- **materials for your project will depend on which activity you choose... Be sure you can get everything you need before you begin to work.

The work you turn in will be a notebook containing answers to the four study questions, vocabulary, and list of sources used. You will also turn in your project.

When you need help, see

Check with your teacher before you begin the activity you have chosen.

Try to finish your study by

Turn in the finished work to

SOCIAL STUDIES
Maps and Globes

Teacher Information

Grades: 3-4; for one to four students.

Time: 5 periods for the notebook. Project times will vary and should be set when the activity is selected.

IMC Information

Study: Cover and 3 pages.

Rev. 4/76

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be A Night to Remember by Walter Lord

At 11:40 on April 14, 1912, the "unsinkable" TITANIC struck an iceberg and began to sink.

By 8:50 a.m. on April 15 it was all over. The TITANIC was lost on its maiden voyage, and the last of 705 survivors had been pulled out of the freezing sea. In the nine hours in between, 2,207 people faced together the supreme crisis in their lives.

Minute by minute, detail by detail, this book recreates these incredible hours.

You will read the book according to specific instructions on six checklists. You will write answers to questions and perform various tasks as directed by the checklists. You will keep a vocabulary sheet and will meet with the teacher or MGM resource aide after each checklist is completed to discuss the vocabulary words and the other tasks you have done.

Materials you will need are

**your copy of this contract. . . Take one from the ICES file.

**a copy of this study . . . Obtain one from the ICES file.

**a copy of the book . . . Check one out of the Media Resource Center. You will find it under the call number 910-L.

**two copies of A Night to Remember Character Sheet, a copy of the Boat Deck and Tank Top diagram, Night to Remember Vocabulary Page, How Many Decks? sheet and Drift ICE map. Obtain these from the ICES file.

The work you turn in will be

answers to all questions in the study

two Night to Remember Character sheets

a marked copy of the Boat Deck and Tank Top diagram

vocabulary page

a completed How Many Decks? sheet

your drift ice map on which you have located the position of the Titanic

When you need help, see

Try to finish your study by [illegible]

Turn in the finished work to

SOCIAL STUDIES

A Night to Remember

Teacher Information

Grade 6 for 4-6 students

Time: 20 periods (This could vary considerably. There are many factors to consider and the teacher and the group must be the judges.)

Assignment: This is one of several studies designed for a small group of students which require more of the teachers time than do most ICES studies in that they require the teacher (or resource aide) to meet periodically with the students for discussion and review of their work as they are doing the studies. These may be used for some students as an intermediate step toward introducing them to studies on which they must work entirely independently.

If you cannot work the time for the required meetings into your schedule do not assign this study.

It is suggested that the teacher be somewhat familiar with the book before assigning this study. The study is guided by six checklists which provide step by step intructions. The teacher should meet with the group initially to give some background about the book and its author. A conference appointment date should at that time be made for when the first checklist has been completed. At conferences discuss vocabulary words as well as the answers to the questions and tasks asked. At the end of each conference an appointment for the following conference should be made. Provisions should also be made to have a collegiate dictionary since ordinary classroom dictionaries will not suffice. One assignment calls for them to consult a cookbook. They may do this at home or bring one from home to school.

About the author

When Walter Lord was ten years old he persuaded his family to go abroad on the OLYMPIC, sister ship to the TITANIC, so he could learn more about the lost liner. In the 28 years since, he has carried on his research with unflagging devotion. He has tracked down, met, and corresponded with scores of survivors, rescuers, relatives of victims, steamship officials, and others intimately connected with the disaster. He has pored over blueprints, builders' specifications, cargo manifests, and the thousands of pages of testimony given at the official investigations in London and Washington. Today he probably knows more about the TITANIC and about the incredible night of April 14, 1912, than anyone alive. He has scrupulously pieced the facts together, and with consummate skill and restraint he has permitted the story to tell itself.

SOCIAL STUDIES

A Night to Remember

Teacher Information (Page 2)

Tell the students

You will meet passengers and crew and learn to know them intimately -- the millionaires, the titled aristocrats, the immigrants, the officers and sailors. You will know what they word, what they said, what they did, and what they felt.

You will sit in the Smoking Room and hear that faint grinding jar. You will walk restlessly about the decks puzzled because the engines have stopped. Later you will stand on these same decks watching the lifeboats pull away one by one in the dark. Finally, as the lights glow red, you will hear the band play "Autumn" and find it hard to believe this could happen to you.

You will be transported to the bridge of the CARPATHIA, racing to the scene of the disaster through dangerous ice floes; you will stand off on the CALIFORNIAN, ten miles away, waiting and wondering as the TITANIC goes under.

As research can resurrect the great ship, as the writer's craft can set it once more on its maiden voyage, this book will show you what made those nine breathless hours A NIGHT TO REMEMBER.

IMC Information

Study: Cover and 16 pages

Consumables: Night to Remember Character Sheet
Boat Deck and Tank Top Diagram
Night to Remember Vocabulary Page
How Many Decks? Sheet
Drift Ice Map

Commercial materials: paperback book from Bantam Books, Inc.
666 Fifth Avenue Price: $1.75
New York, N.Y. 10019

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be A Place to Live by Jeanne Bendick

Read this book to find out about the many kinds of places in which different plants and animals live! Learn about "environment". You will have ten questions to answer when you have finished the book.

Materials you will need are

**your copy of this contract . . . You will find this in the ICES file.

**a copy of the study . . . Take one from the ICES file.

**the book . . . You will find it in the easy book section of the library under the call number E-B

**lined paper

**a pencil

The work you turn in will be

☐ your written answers to the questions

When you need help, see

Try to finish your study by

673

Turn in the finished work to

SOCIAL STUDIES

A Place to Live by Jeanne Bendick

Teacher Information

Grade 2 or 3 for one student

Time: 2 to 4 periods

Assignment: Part of the intent of the studies at this level is to establish the idea of independent study. Emphasize that the student is to follow the study carefully and do the work by himself except if he has questions (in which case he should consult the teacher of MGM resource aide).

Teacher Answers to Questions in the Study:

1. Student responses (castle, mobile home, apartment house,cave)
2-6 Student response
7. Water, air, a place to live, food to eat.
8. Help decay things
9. For our well being.
10. Student response.

IMC Information

Study: Cover and 3 pages

Commercial material: book from Parents Magazine Press
52 Vanderbilt Avenue   Price: $4.95
New York, N.Y. 10017

Processing: Catalog book into library.

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be The Time Machine.

In this study you will travel back through time to a situation in American history. You will make a choice about an issue that really had to be settled, and write an essay about it.

Materials you will need are

**your copy of this contract--Take one from the ICES file.
**a copy of the study The Time Machine--Check one out from the ICES file.
**You may also need some library books to get more background on the situation in which you find yourself.
**pencil or pen and paper

The work you turn in will be your essay.

When you need help, see

Try to finish your study by

675

Turn in the finished work to

SOCIAL STUDIES
The Time Machine

Teacher Information

Grades 5-6; for one student
Time: Allow two or three periods for one essay; more time if the student needs to do some reading for background.
Assignment: Assign one essay at a time. This study may be repeated until all eight topics have been completed. A student may ask you for the real historical solution after completing his essay--see page attached.

IMC Information

Study: cover and 4 pages

Additional teacher information: Page of historical solutions to the situations posed.

4/75

The Time Machine

Historical Solutions

#1. George Clinton seized the lands and was elected governor of New York State. Alexander Hamilton opposed him and lost much political support. Later this counted against him when he needed support in the Federal (Constitutional) Convention.

#2. James Madison tore the New Jersey Plan to pieces point by point. He believed the smaller states had nothing to fear from the larger ones. The states voted 7-3 against the New Jersey Plan and for the Virginia (large-state) Plan.

#3. James Madison listened attentively to Hamilton, as did all other delegates. No action was taken and Hamilton was not supported by the delegates. His suggestions were too extreme! Hamilton left Philadelphia and the delegates had to choose between the New Jersey and Virginia Plans.

#4. King Louis XVI consented to help the revolutionaries, more to hurt England than to assist a new rebel country. "We may thank the perfidy of France," wrote the English poet Cowper, "that picked the jewel out of England's crown."

All European rulers were worried about American independence. They were very much afraid that the idea of revolution to get one's rights would be catching. As D'Alembert of France wrote to Frederick II of Prussia, "I still fear lest this drop of oil spread till it reach us."

#5. While the British people found it difficult and awkward to accept the Americans as equals, and were frequently rude to Mr. Adams, Mr. Jefferson, and other representatives, King George III was most courteous. "Sir," said His Majesty to Mr. Adams, "I was the last man in my Kingdom to consent to your independence, and I shall be the last to do anything to infringe it."

#6. It was agreed by a vote of 10 states to 1 that senators be paid, but the vote was very close (6-5) on the salaries coming from the national treasury rather than the states. Congressmen can vote changes in their salaries, but at present they receive $42,500 (1975 World Almanac) per year.

#7. Marshall ruled in 1824 that Gibbons was right--that Congress had the power to regulate interstate (between states) commerce because state boundaries were crossed.

The case was important then, but even more important later on. This ruling in the coming years affected the railroads, airlines, telephone and telegraph companies, power lines, and transmission of radio and television. These all are concerned with interstate activities.

Situation #8 does not have "a solution."

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be Your School - How Does It Run

Have you ever stopped to think about how your school operates? Who does what? Where do the books in the library come from? Who orders them? Where do your textbooks come from? How are they chosen? Where do your classroom supplies come from? Who orders them? How does that person know what or how much to order? This study will give you a wide variety of school topics about which you may wish to learn more. Depending on which topic(s) you choose to explore, this study may lead you to interviews with librarians, principals, or other school employees of whom you may not even be aware. You will read the study, decide which topic(s) you wish to explore and then will proceed to do so. You will also prepare a means of sharing the results of your investigation(s) with others.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a copy of this study...You may check one out from the ICES file.
**paper, pencil and art materials...Depending on how you choose to share the findings of your investigation.

The work you will produce will be your

☐ paper
☐ newspaper article
☐ oral presentation
☐ display
☐ other means of sharing your findings ____________________
(describe)

I will investigate the following topic(s):

☐ Student Council
☐ Library Books
☐ Textbooks
☐ Special Education
☐ Music Program
☐ The Principal
☐ Library Assistant
☐ Superintendent
☐ Maintenance Department
☐ other
____
____
please list

When you need help, see

Try to finish your study by 678

Turn in the finished work to

SOCIAL STUDIES
Your School - How Does It Run

Teacher Information

Grades 5-6; for one student.

Time: 6 or more periods. Time will vary considerably depending on the students' choice of topics and how thoroughly he pursues his topic.

Assignment: A group of students might wish to do this study, each taking a different topic. The sharing at the end of the study could first be with each other so that each student has an awareness of how the total school operates.

IMC Information

Study: Cover and 5 pages.

3/78

Independent Curriculum Enrichment Studies

SOCIAL STUDIES

This study is for

Date to begin is

Your study will be A World Full of Food.

In this library research study you will use library books and audio-visual materials to find out about food. You will complete a notebook containing answers to study questions, vocabulary, and a list of the sources you used. You will also choose a project.

Materials you will need are:

**your copy of this contract.. Take one from the ICES file.

**a copy of the study...Check one out from the ICES file.
**seven sheets of lined paper.
**library books and audio visual materials.
**materials for your project will depend on which activity you choose... Be sure you can get everything you need before you begin to work.

The work you turn in will be a notebook containing answers to four study questions, vocabulary, and list of sources used. You will also turn in your project.

When you need help, see

Check with your teacher before you begin the activity you have chosen.

Try to finish your study by

680

Turn in the finished work to

SOCIAL STUDIES
A World Full of Food

Teacher Information

Grades: 3 - 5; for one to four students.

Time: 5 periods for the notebook; project times vary and should be set when the activity is chosen.

IMC Information

Study: Cover and 5 pages.

Rev. 4/76

Independent Curriculum Enrichment Studies

STUDY SKILLS

This study is for

Date to begin is

Your study will be How to Research and Write a Report.

This study is a programmed booklet in 10 sections. In sections 1 to 9 you will think of the answer and then check immediately to see whether you are correct. If you peek at the answers before you have tried to figure out the correct answer, you will not learn very much from this study! When you come to section 10, write the answer to every question on your own paper.

Materials you will need are:

**your copy of this contract...Take one from the ICES file.

**a copy of the book...You will find it in the Media Resource Center under the call number KS-371.3-H.

**note paper and pencil.

The work you turn in will be the answers for section 10, the review part of the book.

When you need help, see

Try to finish your study by

Turn in the finished work to

STUDY SKILLS
How to Research and Write a Report

Teacher Information

Grades: 5 - 6; for ~~one~~ 1-4 students

Time: 5 periods.

Assignment: The student can respond to sections 1 through 9 mentally, writing answers only to section 10, the review set. However, if you prefer, you may change the instructions on the contract to ask the student to write all the answers as he goes. This may become rather tedious, but may be necessary for some students. **Works effectively when three or four students do the program together reading aloud.**

IMC Information

Commercial material: Book from Coronet, 65 East South Water Street, Chicago, Illinois 60601 at $1.50 each.

Processing: Catalog book into the library.

Rev. 4/76

Independent Curriculum Enrichment Studies

STUDY SKILLS

This study is for

Date to begin is

Your study will be Quest

In this study there are over 100 activities to help you make using the library fun. By doing the activities you will really get to know the library and its resources. The cards are of four kinds:

1. The library in general
2. Reference books
3. Dictionaries
4. Reference skills

You and your teacher may choose any number of cards in one or more of the four areas. You will turn in the work asked for by the cards you have selected.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**the set of Quest cards...Check them out of the Media Resource Center. They are under the call number KS-028.7-Q.

**paper and pencil.

**other materials as required by the cards you choose.

The work you turn in will be

In one or all areas list the numbers of the cards you have chosen to do.

☐ Library in general...card numbers ______________________________
☐ Reference books...card numbers ______________________________
☐ Dictionaries...card numbers ______________________________
☐ Reference skills...card numbers ______________________________

When you need help, see

Try to finish your study by 684

Turn in the finished work to

STUDY SKILLS
Quest

Teacher Information

Grades 5 and 6; for one student

Time: One or more periods depending on the number of task cards selected.

Assignment: You will probably wish to select specific cards to tailor-make a contract based on the individual needs of the students. To assist you in doing this an index of the cards is provided immediately following this teachers page.

IMC Information

Additional teacher information: Quest card index and answers for Quest cards-4 sheets.

Commercial materials: Sets of Quest Research and Library Skills Tasks Cards are available at Warrens, 1900 Detroit Ave., Concord CA, 94518, at $5.95 per set.

Processing: Remove front explanatory card. Xerox index cards for each of four sections and place these back to back on one sheet (two on each side). Cut apart answer sheet and Xerox back to back on three pages. These pages are to immediately follow teachers page in binder. Catalog set of cards into library.

9/77

Quest Card Index

GENERAL RESEARCH

1. Vocabulary
2. Outlining
3. Famous Firsts
4. Books Solve Problems
5. Alphabet Hall of Fame
6. Money—Money—Money
7. Take Me To Your Leader
8. Who Said That?
9. Weights and Measurements
10. Holiday-Hunt
11. Famous Literary Quotations
12. Literature Sleuth
13. Quotations
14. Food, Clothing Or Shelter?
15. Bibliography
16. Reading List
17. Children's Classics
18. Build A Vocabulary
19. Career Search
20. Animal Research
21. Crash Diet
22. Monster Search
23. Halloween Hunt
24. Christmas Search
25. Poetry, Please
26. Newsman-Expert
27. Cartoons, Please
28. Let's Take A Trip

QUEST

REFERENCE BOOKS

1. Vocabulary
2. Reference Survey
3. Encyclopedias
4. Encyclopedia Quest
5. Significant Happenings
6. Animal Origins
7. Fact Index Search
8. Almanac Search
9. Record Breakers
10. Dates to Remember
11. "Let Your Fingers do the Walking . . ."
12. Area Codes
13. Emergency!!!
14. Atlas Attack
15. What Time Is It?
16. Where Is It?
17. City - Continent Match Up
18. N-S-E-W
19. College Football
20. Musical Terms
21. Geographic Dictionary
22. Slang Vocabulary
23. What Did You Say?
24. Slang

QUEST

LIBRARY

1. Vocabulary
2. Map Maker
3. Behavior in the Library
4. Dewey Decimal System
5. Arrangement of Books
6. Dewey Decimal Posters
7. Biographies
8. Alphabetizing Authors' Names
9. Alphabetizing Catalog Cards
10. Catalog Cards—Author
11. Catalog Cards—Title
12. Catalog Cards—Subject
13. Catalog Cards
14. Parts of a Book
15. Magazine Abbreviations
16. Abbreviations in the Reader's Guide
17. Filing By Dates
18. Reader's Guide Entry
19. Reader's Guide Entries
20. Magazine Aid

QUEST

DICTIONARY

1. Alphabet Fill In
2. Alphabet Follow Up
3. Backwards Alphabet
4. Alphabet Soup
5. Alphabetical A's
6. ABC Detective
7. Dictionary Vocabulary
8. Find It With Guide Words
9. The Entry—What Does It Say?
10. Using the Entry
11. What Can A Dictionary Tell You?
12. Fact Finding in the Dictionary
13. Dict. Sym. & Abbrev.
14. Check Your Spelling
15. To Capitalize Or Not?
16. Accent Clues
17. Syl-la-bles—Word Di-vid-ers
18. Syllable Scramble
19. More Than One
20. What Does It Mean Now?
21. Plain English
22. Idioms Have Special Meanings
23. Antonym Match Up
24. Synonyms Build Vocabulary
25. Deciphering Etymologies
26. Where English Comes From
27. Etymology—A Clue To Meaning
28. Foreign Words In English
29. Find the Status Labels
30. Dictionary Short-Cuts
31. Two In One
32. Dictionary Illustrations
33. Homographs
34. Homonym Comparison
35. Homonym Mix-up
36. Root Words
37. Finding Prefixes
38. Using Prefixes
39. Parade Of Prefixes

QUEST

ANSWERS FOR DICTIONARY CARDS

1. Alphabet Fill In. Answers are obvious.
2. Alphabet Follow Up. Answers are obvious.
3. Backwards Alphabet. Answers are obvious.
4. Alphabet Soup.
   1. a b d e f h i k m o q s t x
   2. a b c e g i k l n o q r s u
   3. a c f g h j k l m p v w y s
   4. b c d g i j l m n o q r x
   5. a d e g h i l n o t v w y z
   6. b c f h j k m p q r s u v w
   7. a c d f g i j l m o p r w y
   8. b c e f i m n o q s u w x z
5. Alphabetical A's. Answers are obvious.
6. ABC Detective. Answers are obvious.
7. Dictionary Vocabulary. Answers are obvious.
8. Find It With Guide Words.
   - gap
   - gantlet
   - gantry
   - gamut
   - gangrene
   - gamekeeper
   - gape
   - gaol
9. The Entry — What Does It Say? Answers are obvious.
10. Using the Entry.
    1. noun
    2. answers will vary
    3. the Greek god of war
    4. Old English
    5. in opposition; against
    6. 5
    7. life
    8. answers will vary according to dictionary used
    9. formulas or formulae
    10. first
    11. divergere
    12. a former military punishment
    13. unfriendly
    14. Scotland
    15. a Russian-designed jet fighter plane
11. What Can a Dictionary Tell You? Answers will vary.
12. Fact Finding in the Dictionary.
    1. Italy
    2. 2444 (1960)
    3. 2985
    4. Brotherhood of Railroad Trainmen
    5. Lungki
    6. Finding a cure for yellow fever.
    7. Japan
    8. Aztecs, Toltecs
    9. Russia
    10. $E=MC^2$
    11. To strengthen Communism throughout the world.
    12. England
    13. Mediterranean
    14. 1801-1809
    15. Molokai, Hawaii
13. Dictionary Symbols and Abbreviations.
    1. noun
    2. verb
    3. adjective
    4. adverb
    5. plural
    6. dialect
    7. synonym
    8. Old English
    9. Middle English
    10. French
    11. German
    12. Latin
    13. Greek
    14. Italian
    15. Old French
    16. Obsolete
    17. interjection
    18. antonym
    19. indicates accented syllable
    20. taken from (a particular language)
14. Check Your Spelling.
    2. untill — until
    3. recieve — receive
    4. dosen't — doesn't
    6. telivision — television
    10. privlege — privilege
    11. foriegn — foreign
    12. medecine — medicine
    15. sincerly — sincerely
    17. suprise — surprise
    18. Wenesday — Wednesday
15. To Capitalize Or Not?
    1. Bible
    4. Armistice Day
    7. Mount Carmel
    8. French
    10. Eskimo
    11. Ganges
    12. Moslem
    13. Europe
    16. Negro
    20. Maginot Line
16. Accent Clues.
    1. accli'mate
    2. bestow'
    3. can'ticle
    4. dea'con
    5. enfran'chise
    6. fau'ces
    7. gos'samer
    8. hi'bernate
    9. infer'ior
    10. lab'yrinth
    11. motif'
    12. oblige'
    13. precau'tion
    14. reg'iment
    15. scal'awag
17. Syllables — Word Dividers.
    1. ac ci dent
    2. A mer i can
    3. au to mo bile
    4. bar bar i an
    5. cham pi on
    6. church
    7. com mu ni cate
    8. def i ni tion
    9. e clipse
    10. e col o gy
    11. glide
    12. Hon o lu lu
    13. ir reg u lar
    14. ma gi cian
    15. mar vel ous
    16. o rig i nal
    17. par a graph
    18. point
    19. ref er ee
    20. sup port

DICTIONARY ANSWERS (cont.)

18. Syllable Scramble.
    1. capitalization
    2. plural
    3. phonetic
    4. syllable
    5. obsolete
    6. definition
    7. accent
    8. sentence
    9. dialect
    10. synonym
    11. suffix
    12. pronunciation
    13. dictionary
    14. archaic
    15. spelling
    16. etymology
    17. substandard
    18. prefix

19. More Than One.
    1. mice
    2. stories
    3. data
    4. kisses
    5. floods
    6. ladies
    7. thieves
    8. heroes
    9. monsters
    10. babies
    11. monkeys
    12. oxen
    13. wives
    14. radios
    15. children
    16. potatoes
    17. wolves
    18. moose
    19. beliefs
    20. quizzes
    21. schools
    22. bosses
    23. homework
    24. pianos
    25. indeces
    26. questions
    27. deer
    28. keys
    29. films
    30. dictionaries

20. What Does It Mean Now? Answers will vary.

21. Plain English. Answers will vary.

22. Idioms Have Special Meanings. Explanations will vary.

23. Antonym Match Up

3
6
10
8
1
9
2
4
7
5

24. Synonyms Build Vocabulary. Answers will vary.

25. Deciphering Etymologies. Answers are obvious.

26. Where English Comes From.
    1. French
    2. Turkish
    3. Spanish
    4. Latin
    5. German
    6. French
    7. Eskimo
    8. Japanese
    9. Hindu
    10. Italian
    11. Italian
    12. French
    13. Dutch
    14. Turkish
    15. Japanese
    16. Latin
    17. Turkish
    18. Swedish
    19. German
    20. Bantu

27. Etymology — A Clue to Meaning.
    1. The sandwich was named after the 4th Earl of Sandwich who invented it so he could eat without leaving the gaming table.
    2. sorrow
    3. Scandinavia
    4. when riding
    5. fiddle
    6. in a meadow
    7. hand
    8. turner's wheel or lathe
    9. puncheon
    10. gnaw

28. Foreign Words in English. Answers will vary.

29. Find the Status Labels.
    1. substandard
    2. Especially British
    3. informal
    4. Scottish
    5. archaic
    6. poetic
    7. archaic
    8. informal
    9. U.S. slang
    10. informal
    11. Especially British
    12. informal
    13. Spanish
    14. informal
    15. informal
    16. slang
    17. slang
    18. informal
    19. informal
    20. informal

Note — Answers may vary slightly according to dictionary used.

30. Dictionary Shortcuts.
    1. Bachelor of Arts or able-bodied seaman
    2. National Association for the Advancement of Colored People
    3. Society for the Prevention of Cruelty to Animals
    4. Civilian Conservation Corps
    5. Doctor of Civil Law
    6. North Atlantic Treaty Organization
    7. Federal Bureau of Investigation
    8. Federal Communications Commission
    9. Justice of the Peace
    10. noncommissioned officer
    11. South America
    12. British Broadcasting Corporation
    13. in the year of the Lord
    14. Parent - Teacher Association
    15. very important person
    16. United States Mail
    17. South East Asia Treaty Organization
    18. United Nations Educational, Scientific and Cultural Organization
    19. United States Marine Corps
    20. Veterans Administration

31. Two In One.
    1. can not
    2. I would
    3. we have
    4. they are
    5. it is
    6. will not
    7. does not
    8. she is
    9. they would
    10. we are
    11. I have
    12. would have
    13. could not
    14. I will
    15. he would
    16. is not
    17. has not
    18. it will
    19. were not
    20. had not

DICTIONARY ANSWERS (cont.)

32. Dictionary Illustrations. Answers will vary.

33. Homographs.

1. hamper
3. ruffle
5. prank
6. cleave
7. weal
8. meal
10. oratory
12. tick
13. grave
15. graze
17. pile
18. graft
19. flat
20. scarf

34. Homonym Comparison. Answers will vary.

35. Homonym Mix-Up.

1. **Their principal** told them where the **fourth** answer was.
2. The **herd** of elephants stormed down the **road** and **through** the town.
3. We **made eight** red **sails** for our sailboat.
4. **Their bee** refused **to** make honey.
5. The amazing **flea threw** the dog across the lawn.
6. We could **hear** the **bored** sighs of the audience
7. The **sole** survivor was in a **daze** and did not **know** which **way to** go.
8. Their **horse** ate eight **pails** of grain.
9. **It is too** early to know **whether their plane** will arrive on time.
10. The **capitol** was painted **plain blue.**

36. Root Words. Answers will vary.

37. Finding Prefixes.

1. self
2. in
3. mis
4. dis
5. im
6. re
7. pro
8. pre
9. post
10. para
11. for
12. ex
13. en
14. de
15. con
16. com
17. co
18. bi
19. anti
20. ad

38. Using Prefixes.

1. not
2. opposite of
3. bad
4. do the opposite of
5. under, below
6. again
7. from, out of
8. before
9. against
10. of or over oneself

Note — example words will vary.

39. Parade of Prefixes. Answers will vary.

ANSWERS FOR LIBRARY CARDS

1. Vocabulary. Answers will vary.

2. Map Maker. Answers will vary.

3. Behavior in the Library. Answers will vary.

4. Dewey Decimal System.

100-199	Understanding Ourselves
200-299	How the Great Religions Began
300-399	Railroads in the Days of Steam
400-499	The Magic of Words
500-599	All About the Stars
600-699	How Books Are Made
700-799	The Complete Book of Pottery Making
800-899	Short Plays for Children
900-999	Joan of Arc in France
000-099	How to Use Books and Libraries

5. Arrangement of Books.

126	230.06	320	320	362.74	420
J3	W	B	C	Z	C
426.47	504.7	504.81	512.83	606	606
O14	L	L123	B63	A2	D1
863.01	899.2	914.3	917.1	920	921.34
K44	N	K	C34	R	J

6. Dewey Decimal Posters. Answers are obvious.

7. Biographies. Answers will vary.

8. Alphabetizing Authors' Names.

Baum, L. Frank
Carroll, Lewis
Costain, Thomas B.
Defoe, Daniel
de la Mare, Walter
Dennis, Wesley
Dumas, Alexandre
Field, Eugene
Grey, Zane
Henry, Marguerite
Henry, O.
Heyerdahl, Thor
Lewis, Sinclair
Poe, Edgar Allen
Pyle, Howard
Roberts, Kenneth
Slaughter, Frank
Swift, Jonathan
Twain, Mark
Verne, Jules

9. Alphabetizing Catalog Cards.

Airplanes
Birds in Art
Black Beauty
Boomtown Boys
Boys-Stories
Canterbury Tales, The
California
Call of the Wild, The
Casewit, Curtis W.
Grandfather's Tales
Indians-Fiction
Indians of North America
Matthew, William H.
Mitchell, Margaret
Mutiny on the Bounty
Special War, The
Sports-Biography
United States
Weber, Lenora
Wells, H. G.

ANSWERS FOR LIBRARY (cont.)

10. Catalog Cards — Author.
    1. Call number
    2. Book title
    3. Number of pages
    4. Bibliography
    5. Author's name
    6. Year of author's birth
    7. Date of publication
    8. Publisher
    9. Maps and illustrations
    10. Page where bibliography is located
11. Catalog Cards — Title.
    1. Book title
    2. Call number
    3. Book title
    4. Number of pages
    5. Bibliography
    6. Author's name
    7. Year of author's birth
    8. Date of publication
    9. Publisher
    10. Maps and illustrations
    11. Page where bibliography is located
12. Catalog Cards — Subject.
    1. Subject of book
    2. Call number
    3. Title of book
    4. Number of pages
    5. Bibliography
    6. Author's name
    7. Year of author's birth
    8. Date of publication
    9. Publisher
    10. Maps and illustrations
    11. Page where bibliography is located
13. Catalog Cards. Answers will vary.
14. Parts of a Book. Answers are obvious.
15. Magazine Abbreviations.
    - American Home
    - Art News
    - Better Homes and Gardens
    - Business World
    - Modern Photography
    - New York Times Magazine
    - National Geographic Magazine
    - National Review
    - Changing Times
    - Current History
    - Consumers Bulletin
    - Popular Science
    - Popular Mechanics
    - Consumers Reports
16. Abbreviations in the Reader's Guide.
    - abbreviation
    - August
    - year
    - volume
    - supplement
    - street
    - publisher
    - pseudonym
    - October
    - February or Fall
    - number
    - January
    - incorporated
    - illustrated
    - editor
    - department
    - March
    - association
    - bibliography
    - limited
17. Filing by Dates.
    - Jan 10 72
    - Jan 1 73
    - Feb 19 73
    - Mar 26 73
    - Jun 8 73
    - July 23 73
    - Sept 17 73
    - Oct 22 73
    - Nov 26 73
    - Mar 13 74
    - Mar 25 74
    - Jun 3 74
    - Aug 19 74
    - Sept 2 74
    - Sept 16 74
    - Oct 7 74
18. Reader's Guide Entry.
    1-d, 2-g, 3-i, 4-f, 5-a, 6-b, 7-c, 8-e, 9-i.
19. Reader's Guide Entries. Answers are obvious.
20. Magazine Aid. Answers will vary.

ANSWERS FOR REFERENCE BOOKS

1. Vocabulary. Answers will vary.
2. Reference Survey. Answers will vary.
3. Encyclopedias. Answers will vary.
4. Encyclopedia Quest.
    1. do as you please
    2. early 1800's, Italy, criminals
    3. Mayas
    4. 12
    5. 1959
    6. orange hawkweed
    7. Shakespeare
    8. lawyer and statesman
    9. Hugh Lofting
    10. Liechtenstein
    11. 1949
    12. Charles Dickens
5. Significant Happenings. Answers will vary.
6. Animals Origins.
    1. Borneo & Sumatra
    2. India
    3. Africa
    4. Central & S. America
    5. Germany
    6. Africa
    7. South America
    8. Africa
    9. Central Asia
    10. North America
    11. New Zealand
    12. South America
    13. Madagascar
    14. Australia
    15. Africa
    16. New Zealand
    17. Asia & Africa
    18. Egypt
    19. Tropical America
    20. Africa
7. Fact Index Search.
    1. Article 1
    2. count of the stable
    3. Civil War
    4. Joan of Arc
    5. Shakespeare
    6. 28
    7. I came, I saw, I conquered
    8. Alaska
    9. 83-30 BC
    10. set standards of safety in industry
8. Almanac Search.
    1. 13¢
    2. 3636
    3. Orville and Wilbur Wright
    4. bristle cone pine, California
    5. 8,578
    6. 1971
    7. Preakness, Kentucky Derby, Belmont Stakes
    8. SC-10, Mich-3
    9. Metropolitan-NY
    10. 605 feet
    11. 1921
    12. 5,116
9. Record Breakers.
    1. Jane Bunford, 7' 7"
    2. 1069 lbs.
    3. Australia
    4. Hershey, Penn.
    5. 25,000 lbs.
    6. Pres. Theo. Roosevelt
    7. El Cordobes
    8. London Bridge
    9. Robert Stilgenbauer
    10. Yacht racing
10. Dates to Remember.
    1. Paul Revere's ride
    2. Declaration of Independence
    3. Bear Flag of Repub. of Calif. raised
    4. seige of the Alamo
    5. gold discovered in California
    6. southern states seceded from the Union
    7. Emancipation Proclamation
    8. San Francisco earthquake and fire
    9. W. W. II Armistice signed
    10. Stock market crash
    11. Attack on Pearl Harbor
    12. John F. Kennedy assassinated
    13. first man on the moon
    14. Communist China granted UN membership
    15. Nixon resigned

REFERENCE ANSWERS (cont.)

11. Let Your Fingers Do the Walking. Answers will vary.

12. Area Codes.
   1. 415
   2. 702
   3. 215
   4. 816
   5. 512
   6. 516
   7. 903
   8. 509
   9. 614
   10. 404
   11. 312
   12. 219
   13. 515
   14. 313
   15. 308

13. Emergency. Answers will vary.

14. Atlas Attack.
   1. Sicily
   2. Congo
   3. India
   4. 10:00 AM
   5. Russia
   6. under 10 inches
   7. China
   8. Asia and Australia
   9. Ariz., New Mex., Tex., Okla.
   10. 8:00

15. What Time Is It? Answers will vary.

16. Where Is It?
   1. France
   2. Italy
   3. Canada
   4. Japan
   5. Australia
   6. Chile
   7. Pakistan
   8. Turkey
   9. Portugal
   10. Germany
   11. Iceland
   12. Afghanistan
   13. Ethiopia
   14. China
   15. Spain
   16. Egypt
   17. Nepal
   18. Korea
   19. Yugoslavia
   20. Norway

17. City-Continent Match Up.
   1-C, 2-E, 3-B, 4-A, 5-D, 6-E, 7-F, 8-A, 9-E, 10-D, 11-E, 12-A, 13-C, 14-D, 15-C, 16-B, 17-A, 18-F, 19-E, 20-D

18. N-S-E-W. Answers will vary.

19. College Football.
   1-T, 2-F, 3-F, 4-T, 5-T, 6-F, 7-T, 8-T, 9-F, 10-T

20. Musical Terms. Answers are obvious.

21. Geographical Dictionary.
   1. 40 miles
   2. Georgia
   3. 13,574 feet
   4. Oregon
   5. 18,793
   6. Caribbean
   7. 12
   8. Civil War
   9. Italy
   10. Blue Ridge

22. Slang Vocabulary. Answers will vary.

23. What Did You Say? Answers are obvious.

24. Slang. Answers will vary.

ANSWERS FOR GENERAL RESEARCH CARDS

1. Vocabulary. Answers are obvious.

2. Outlining. Answers will vary.

3. Famous Firsts.
   1. He made the first practical steamboat trip on the Clermont.
   2. He made the first steamboat experiment.
   3. He sent the first message over the first telegraph line.
   4. He discovered the tuberculosis germ.
   5. He made the first successful flight in an airplane.
   6. He made the first continuous flight from Albany to New York.
   7. He demonstrated the first liquid fuel rocket flight.
   8. They sent up the first hydrogen-filled balloon.
   9. He made the first non-stop flight from New York to Paris.
   10. She began nationally significant Civil Rights action.
   11. He was the first human space traveler.
   12. He performed the first successful human heart transplant.
   13. He was the first man to set foot on the moon.
   14. He was the first democratically elected Marxist head of government.
   15. He was the first Negro elected to the Senate in 85 years.

4. Books Solve Problems. Answers will vary.

5. Alphabet Hall of Fame.
   1. He won 7 gold medals in swimming in the 1972 Olympics.
   2. Attorney
   3. Millionaire head of Getty Oil Co.
   4. Advice columnist
   5. He invented a vaccine for polio.
   6. She is a leading women's liberationist.
   7. He is head of the United Farm Workers.
   8. He is a leading space scientist.
   9. Newspaper columnist.
   10. He was the World Heavyweight Boxing Champion (1919-26)
   11. He lost the 1936 presidential election to Franklin Roosevelt.
   12. Best selling author and playwright.
   13. Consumer advocate.
   14. American artist.
   15. Mayor of Chicago.
   16. Congresswoman from New York.
   17. Professional baseball manager.
   18. Economist.
   19. Author of many best sellers.
   20. Professional tennis player.

GENERAL RESEARCH ANSWERS (cont.)

6. Money — Money — Money.
    1. Albania
    2. West Germany
    3. Sweden, Iceland
    4. Denmark, Norway
    5. Italy
    6. Poland
    7. Brazil
    8. Japan
    9. Chile, Portugal
    10. Finland
    11. Greece
    12. Panama
    13. Russia
    14. Turkey, Egypt, Lebanon, Syria
    15. Peru
    16. Zambia
    17. Venezuela
    18. Saudi Arabia
    19. Romania
    20. Paraguay

7. Take Me To Your Leader.
    1. U.S.S.R.
    2. France
    3. West Germany
    4. Canada
    5. Saudi Arabia
    6. Israel
    7. Chile
    8. Greece
    9. England
    10. Japan
    11. Ethiopia
    12. West Germany
    13. Uganda
    14. China
    15. Egypt
    16. France
    17. India
    18. Yugoslavia
    19. Spain
    20. Cyprus

8. Who Said That?
    1. Julius Caesar
    2. John Paul Jones
    3. Patrick Henry
    4. Benjamin Franklin
    5. Horace Greeley
    6. Abe Lincoln
    7. John F. Kennedy
    8. Nathan Hale
    9. Will Rogers
    10. Thomas Paine
    11. Franklin D. Roosevelt
    12. Socrates
    13. Woodrow Wilson
    14. Abe Lincoln
    15. General D. MacArthur
    16. Franklin D. Roosevelt
    17. George Washington

9. Weights and Measurements.
    1. 1 inch = 25 millimeters
    2. 1 foot = 0.3 meter
    3. 1 yard = 0.9 meter
    4. 1 mile = 1.6 kilometers
    5. 1 sq. inch = 6.5 sq. centimeters
    6. 1 cu. foot = 0.03 cu. meter
    7. 1 quart = 0.95 liter
    8. 1 pound = 0.45 kilogram
    9. 1 millimeter = 0.04 inch
    10. 1 meter = 3.3 feet
    11. 1 meter = 1.1 yards
    12. 1 kilometer = 0.6 mile
    13. 1 sq. centimeter = 0.16 sq. inch
    14. 1 cu. meter = 35 cu. feet
    15. 1 liter = 1.05 quarts
    16. 1 kilogram = 2.2 pounds

10. Holiday Hunt. Explanations will vary and dates will vary according to the year in which the assignment is done.

11. Famous Literary Quotations.
    1. Miguel Cervantes, **Don Quixote**
    2. Miguel Cervantes, **Don Quixote**
    3. Shakespeare, **Henry IV**
    4. Shakespeare, **King Lear**
    5. William C. Bryant, **Thanatopsis**
    6. Shakespeare, **Julius Caesar**
    7. Thoreau, **Walden**
    8. Whittier, **Maud Muller**
    9. Beaumarchais, **Barber of Seville**
    10. Shakespeare, **Hamlet**
    11. Chaucer, **Canterbury Tales**
    12. Byron, **Don Juan**
    13. Alexandre Dumas, **The Three Musketeers**
    14. Shakespeare, **Henry IV**

12. Literature Sleuth.
    1. **Robinson Crusoe,** Daniel Defoe
    2. **The Diary of Anne Frank,** Anne Frank
    3. **Around the World in Eighty Days,** Jules Verne
    4. **A Christmas Carol,** Charles Dickens
    5. **A Visit from Saint Nicholas,** Clement C. Moore
    6. **The Wizard of Oz,** Frank Baum
    7. **Doctor Doolittle,** Hugh Lofting
    8. **Tom Sawyer,** Mark Twain
    9. **Dr. Jekyll and Mr. Hyde,** Robert Louis Stevenson
    10. **Don Quixote,** Miguel Cervantes

13. Quotations. Answers will vary.

14. Food, Clothing Or Shelter?
    1. food
    2. clothing
    3. shelter
    4. clothing
    5. clothing
    6. shelter
    7. clothing
    8. food
    9. clothing
    10. shelter
    11. food
    12. food
    13. shelter
    14. shelter
    15. food
    16. shelter
    17. shelter
    18. clothing
    19. food
    20. clothing
    21. shelter
    22. food
    23. clothing
    24. food
    25. clothing
    26. food
    27. clothing
    28. food
    29. shelter
    30. shelter

15. Bibliography. Answers will vary.

16. Reading List. Answers will vary.

17. Children's Classics. Answers will vary.

18. Build A Vocabulary. Answers will vary.

19. Career Search. Answers will vary.

20. Animal Research. Answers will vary.

21. Crash Diet. Answers will vary.

22. Monster Search. Answers will vary.

23. Halloween Hunt. Answers will vary.

24. Christmas Search. Answers will vary.

25. Poetry, Please. Answers will vary.

26. Newsman - Expert. Answers will vary.

27. Cartoons, Please. Answers will vary.

28. Let's Take A Trip. Answers will vary.

Independent Curriculum Enrichment Studies

STUDY SKILLS

This study is for

Date to begin is

Your study will be Search and Research

These cards will ask you to do things which will help you learn to find information about many things. You will learn where to go in the library to find the answers to different kinds of questions. You may do the whole set of cards or have your teacher help you pick certain ones to do.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the set of Search and Research cards...You will find it in the Media Resource Center under the call number KS-028.7-S.
- **newspapers, catalogs, telephone book etc. depending on which cards you pick.
- **writing and/or drawing paper depending on which cards you pick.
- **crayons.
- **pencil.

The work you turn in will be

☒ The work asked for by the cards you select

☐ I plan to do the whole set

☐ I plan to do cards numbered (list) ________________________________

When you need help, see

Try to finish your study by

Turn in the finished work to

STUDY SKILLS
Search and Research

Teacher Information

Grades 2&3; for one or several students.

Time: One or more periods depending on the number of cards selected.

Assignment: Search and Research cards are designed to help children learn skills needed to do research and find information. After children acquire the skills involved in using reference materials, they are free to pursue their own interests or increase their knowledge of classroom studies through independent learning. Such ability leads to improved reading skills as children seek information about subjects interesting to them. They have reason to read--a fact which may motivate the most reluctant learner.

When children have reached a level of reading competence enabling them to read materials other than basal texts, they may be introduced to research skills and thus become personally involved in learning, work more independently, and become self-directing.

The ability to use alphabetical order is a basic skill. Classification helps organize thinking, and enables students to transmit with greater ease and meaning the information gained. Using the Search and Research cards, children will become acquainted with a TV guide, newspapers, telephone books, maps, signs, and resource people. Cards on the use of dictionaries give children a basic understanding of their varied content. Activities concerning the function and use of the library are also included.

Search and Research cards may also be used by individual children who need advanced activities, enrichment or reinforcement of already learned skills.

It is well to keep a record of activities completed by each student. This ma[illegible]e done by listing completed-card numbers after child's name on a class list or on [illegible] card or notebook page for each child. In this way, activities are listed as well as the teacher's evaluative comments.

The use of research-skill cards is a natural supplement to the reading program because it provides opportunity to apply and perfect whatever reading competence has been developed.

Materials needed for use of Search and Research cards: writing paper, drawing paper, crayons, cards (paper or tagboard cut 3x5, 1x3), catalogs and magazines, newspaper (old and current), TV guides, map of United States, telephone books, dictionaries (picture dictionaries, or those more advanced, depending on ability level).

Assignment: Unless a child is very advanced you will probably wish to help him select several cards at a time (or one at a time) and check his work frequently. Your knowledge of the child will be the best guide as to how much he may be assigned at a given time.

IMC Information

Commercial material: Search and Research Set A is available from Creative Teaching Press, Inc., Monterey Park CA, 91754 or Teachers Exchange of San Francisco, 300 35 Ave., San Francisco CA, 945124, at $4.95.

Processing: Remove contents card and Introduction to Teaching Research Skills card. Catalog into library.

Independent Curriculum Enrichment Studies

STUDY SKILLS

This study is for

Date to begin is

Your study will be Superbrain Strains

Stop coasting! Put that brain to work a bit. This set of 48 cards with titles such as "Ding-aling", "Surprise" and "Scavenger Hunt" will require you to limber up your brain and put to use materials such as newspapers, encyclopedias, dictionaries, almanacs, magazines etc. You may wish to do the entire set or have your teacher help you select the cards he feels will "strain your brain". Fun!

Materials you will need are

**your copy of this contract...Take one from ICES file.
**the set of Study Skills Activity cards...You will find them in the Media Resource Center with the call number KS-028.7-S.
**study skills record card...Take one from the ICES file.
**magazines, newpapers, almunacs, encyclopedias etc., as asked for by each card...You will find most of these in the Media Resource Center.
**lined paper and a pencil.

The work you turn in will be

☒ The work asked for by the cards you select.
☐ I plan to do the entire set.
☐ I plan to do cards numbered (list numbers) ______

When you need help, see

Try to finish your study by

Turn in the finished work to

STUDY SKILLS
Superbrain Strains

Teacher Information

Grades 4-6; for one student.

Time: One or more periods depending on number of cards selected.

Assignment: Cards contain a wide variety of activities and skills. You may wish to help the student select cards which will zero in on certain skills, although there is enough variety that a student probably wouldn't get bored doing the entire set.

CONTENTS

SKILLS ~ CARD NUMBERS

ENCYCLOPEDIAS . . . 1, 2, 3
TIME LINE 4
LIBRARY and RESEARCH . . . 5, 6, 7, 8, 9, 10, 11, 12
GRAPHS 14, 15
NEWSPAPERS (INCL. READING, WRITING, CRITICAL THINKING, MAIN IDEAS, ADS ETC.) . . . 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
ALMANAC, ATLAS AND MAPS 29, 30, 31, 32, 33
MISC. INCLUDING
CREATIVE "AD" . . . 34
LIBRARY PUZZLE . . 35
PHONE 36
DICTIONARY 37
T.V. GUIDE 38
MAGAZINES 39
CATALOGS 40
BOOKS:
TYPES 41
SECTIONS . . . 42

IMC Information

Additional teacher information: Answers.

Consumable: Duplicate record cards 2 to a sheet and cut in half.

Commercial material: Study Skills Activity Cards are available from Frank Schaffer Publications Inc., 26616 Indian Peak Rd., Palos Verdes Penensula CA, 90274, or the Teachers Exchange of San Francisco, 600 35th Ave., San Francisco CA, 94121, at $4.95.

Processing: Remove title card, record card, contents card, 3 answer cards. Copy the 3 answer cards on a separate answer page to immediately follow the teachers sheet. Catalog into library.

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ANSWERS

IF A CARD ISN'T LISTED, ANSWERS WILL VARY

1 1. Ericson 2. 1270 3. Diaz, Columbus, DaGamma, Vespucci, Cabot 4. Hudson

6 1. 2 2. 5 3. 2 4. 11 5. 7 6. 8

8 1. Author 2. Alphabetical order by Author's last name 3. Fiction has no call number 4. any 4 of these - Author, Title, Publisher, Date or Story plot 5. any 2 of: Germany 50 yrs. old or 27 languages

9 1. Title = 1; Author = 3; Subject = 2 2. Robt. Borja 3. Children's Press 1961 4. Stories of Pioneers & Steamboats 5. 123 pages 6. U.S. History 7. 921.5 section

10 1. 800 2. 400 3. 800 4. 900 5. 500 6. 900 7. 500 8. 100 9. 200 10. 600

13 Authors: Dahl, Dickens, Hano, Norton, Pine, Schultz
Titles: Charlie & the Chocolate Factory; Charolotte 's Web; Christmas Carol, The; Indians Knew, The; Pippi Longstocking, Willie Mays
Subjects: Baseball, Congress, Dinosaurs, Indians, Pirates, Spiders

14 1. 1970, 1971 2. 500 3. 1974 4. 3,500 5. 1000 balls 6. answers vary 7. more balls are shown

20 Who - Purdue & Nortre Dame What - Purdue Won by an Upset When - Sept. 28, 1974 Where - South Bend Why & How - Interceptions & Strong Defense

21 1. 282-4860 (ALSO POSSIBLE 894-6923; 764-7070; 225-6191) 2. 881-1355 3. 271-6372 4. 576-0391 5. 446-1052 or 359-7743 6. 408/373-5879 or 408/758-4461

23 1. Jackets 2. 10% 3. Sunday only 4. $7.00 - $100.00 5. 334 S. Market St., Shoptown 6. Phone 678-7351 7. "Charge it"

26 A. answers vary B. Any of the following - vinyl top, 60/40 seat, cloth interior, AM-FM TAPE C. answers vary D. 7, 9, 11 E. answers vary

29 1. & 2. answers vary 3. Part I will vary; People = Europe, Land = Africa

31 1. Will vary at different dates 2. 41,367 sq. mi. 3. 630 mi., 2,315 mi, 8,000 mi. 4. will vary 5. a. McGovern, Nixon, b. will vary c. 77,718,554 6. will vary

32 1. & 2. will vary 3. 72 lbs., 54½ in., 31" girth, Cuttyhunk, Mass. 1969, by E. Kirker 4. N.Y. Knicks 5. any of these: Buchanan, Duran, Carrasco, Ramos or Carmona

35 1. Almanac 2. Author 3. Subject 4. biography 5. library 6. fiction 7. card catalog 8. Title

36 1. His first name and address 2. E. A. Keller, M.D., 3448 Tanglewood Ln. 3. Barney 4. Chemicals 5. George, James, William & Edward

37 1. Will vary with dictionary 2. pē nl īz, grap'l, kom'it, a do'be, sum'mer Meanings - will vary Spelling - Blonde, Catalog, Grey, Center

38 1. True Adventure or Wander lust 2. Charting the market & N.Y. stocks 3. The 10:00 o'clock show is still on. 4. Children of the world 5. Any of these: Love of Life, Guiding Light, Doctors, All My Children, Edge of Night, Another World 6. Any 3 of these: Now You See It, High Rollers, Anything You Can Do, Hollywood Squares, Let's Make A Deal, Dating Game, Price Is Right

41 1. Cover 2. Title page 3. Index 4. Table of Contents 5. Glossary 6. Title page or back of it; author

42 1. Almanac 2. Dictionary 3. Atlas or Encyclopedia 4. Card Catalog

Independent Curriculum Enrichment Studies
STUDY SKILLS

This study is for

Date to begin is

Your study will be You Learn to Type! Go through lesson ______.

You may want to learn just from the book. However, there are tape cassettes of the earlier lessons. You may want to use them, too.

Be sure you reach the speed and accuracy goal for each lesson. This goal is given on the colored side of each page under the heading "Test Your Skill." It is necessary to practice each lesson many times to reach the goal. If you are having trouble, see your teacher for help.

Save the work you do for "Test Your Skill" and for each "Clinic Lesson" to show your teacher. If you can, use scratch paper for practice work.

Materials you will need are

**your copy of this contract--Take one from the ICES file. Be sure to write down the date you start and finish each lesson.
**the book You Learn to Type! by Alan C. Lloyd--Check it out from the Media Resource Center. You will find it under the call number 652.3-L. Notice that you can make the book stand up.
**the tape cassettes for You Learn to Type!--If you want to use them, you will find them in the Media Resource Center under RT-652.3-Y.
**typewriter and paper

The work you turn in will be the typing you do for "Test Your Skill" in each lesson and for the "Clinic Lessons." Your teacher may ask you to show her how well you can type.

When you need help, see

Be sure to ask for help if it takes too long to reach the goal in a lesson.

Try to finish your study by

Turn in the finished work to

STUDY SKILLS
You Learn to Type!

Teacher Information

Grades 5-6; for one student
Time: Allow approximately 10 periods for a unit. However, encourage a student to let you know if he can proceed faster.
Assignment: Assign one unit at a time. If possible, have the student type for you or someone else after each unit. Check particularly for touch typing (not looking at the keys), even stroke rhythm, and posture. Be sure to indicate which lesson the student should complete for his current assignment.

IMC Information

Consumable: The back of the student contract for this study is a lesson-by-lesson record, not the usual Date/Work Done.

Additional teacher information: Table of Contents of the book.

Commercial material: Books and records from McGraw-Hill,

Processing: Since the company does not sell tape cassettes, we will copy the records onto cassettes in this case. Process books and cassettes separately for the library.

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STUDY SKILLS
You Learn to Type!

WHAT IS *In This Book*

Unit	Lesson		Page
1		Getting ready	6
	1	Home keys	9
	2	Home keys	12
	3	E and U keys	14
	4	R and I keys	15
	5	G and O keys	16
	6	CLINIC	18
2	7	V and H keys	20
	8	T and Period	22
	9	M, Left Shift	23
	10	C and Comma	25
	11	B, Right Shift	26
	12	CLINIC	28
3	13	W and N keys	29
	14	X and Y keys	31
	15	Q, /, ? keys	32
	16	Z and P keys	33
	17	Hyphen, Lock	34
	18	CLINIC	35
4	19	Speedup drills	37
	20	Speedup drills	39
	21	Speedup drills	40
	22	Speedup drills	41
	23	Speedup drills	42
	24	CLINIC	43
5	25	1 and 2 keys	44
	26	3 and 4 keys	46
	27	7 and 8 keys	47
	28	9 and 0 keys	48
	29	5 and 6 keys	49
	30	CLINIC	50
6	31	Margin planning	51
	32	Centering across	53
	33	Tab indenting	54
	34	Centering vertically	56
	35	Margin bell	57
	36	CLINIC	58
7	37	' and " keys	60
	38	(,), : keys	62
	39	Underscore key	63
	40	Other symbols	65
	41	Reinsertions	66
	42	CLINIC	68
8	43	*Project 1—*	
	44	Skill drills	69
	45	and schoolwork	to
	46	centering	74
9	47	*Project 2—*	
	48	Skill drills	74
	49	and schoolwork	to
	50	column typing	79
10	51	*Project 3—*	
	52	Skill drills	79
	53	and schoolwork	to
	54	enumerations	86
11	55	*Project 4—*	
	56	Skill drills,	86
	57	envelopes, and	to
	58	postal cards	91
12	59	*Project 5—*	
	60	Skill drills	91
	61	and the typing	to
	62	of letters	98
13	63	*Project 6—*	
	64	Skill drills	98
	65	and schoolwork	to
	66	report typing	106
14	67	*Project 7—*	
	68	Skill drills	106
	69	and artistic	to
	70	display typing	111
Remedial Glossaries			112–120

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Abominable Logic from How to Create a Think Tank by Jan Kurte and Lynn Tuttle (problem by Carolyn Riddell)

Given a difficult problem in logic, you will learn how to use a matrix to organize the information in the problem in a systematic way so that the solution becomes evident. You will solve the problem and have an opportunity to create a logic problem of your own and formulate a matrix which would help others in solving it.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of this study...Check one out from the ICES file.
- **pencil
- **paper

The work you turn in will be

☒ Your solution to the Abominable Logic problem

☐ A logic problem which you have written with a matrix which will help others in solving it (Send a copy to the MGM Coordinator. We may be able to use it for an ICES study).

When you need help, see

Try to finish your study by 702

Turn in the finished work to

THINKING SKILLS
Abominable Logic

Teacher Information

Grades 4-6 for one student

Time: One period (more if the student has elected to write a logic problem of his own).

Answers to Abominable Logic Problem:

SOLUTION

1. Ms. Smith - White, House # 1, Truckdriver, Dracula
2. Ms. Jones - Blonde, House # 2, Janitor, Mummy
3. Ms. Clark - Red , House 3, Teacher, Frankenstein
4. Ms. Johnson - Brown, House 4, Secretary, Loch Ness Monster
5. Ms. Riley - Black, House #5, Musician, Abominable Snowman
6. Ms. Wilson - Grey, House #6, Lawyer, Wolfman

IMC Information

Study: Cover and 3 pages.

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Independent Curriculum Enrichment Studies

THINKING
SKILLS

This study is for

Date to begin is

Your study will be Associations

With a grease pencil you will match the first object in each row on a set of "Wipe Off Cards" with an associated item in the same row.

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a set of Associations Wipe Off Cards... Check one out of the Media Resource Center...You will find it under the call number KS-153.1-A.

**grease pencil or removable ink marking pen.

The work you turn in will be your completed set of Associations Wipe Off Cards marked with grease pencil or marking pen.*

*Be sure to wipe off the cards completely before returning the set to the Media Resource Center so they will be ready for the next person.

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Associations

Teacher Information

Grades 1 and 2; for one student.
Time: One period.
Assignment: Be sure the child brings his completed cards to you for checking. Remind the student to wipe off the cards after they have been checked.

Correction Key

The Correction Key below reads as follows: object to be paired-object it pairs with and that objects position in the row-1,2,3 or 4.

- Card 1
  - evergreen tree-pine cone (2)
  - umbrella-raincoat (3)
  - hen-hen's egg (4)
  - pilot-jet plane (1)
- Card 3
  - football-football field (4)
  - electric mixer-angel food cake (3)
  - boy's head-hat (2)
  - pile of leaves-rake (1)
- Card 5
  - pineapple-banana (2)
  - snowman-snowflakes (4)
  - baseball pitcher-baseball (1)
  - spider web-spider (3)
- Card 7
  - ice cubes-refrigerator (3)
  - box of raisins-bunch of grapes (1)
  - feather-ostrich (4)
  - pencil sharpener-pencil (2)
- Card 9
  - dust pan-broom (1)
  - toaster-slices of bread (4)
  - cocoon-butterfly (3)
  - Christmas tree-fireplace and stockings (2)
- Card 11
  - flashlight-batteries (2)
  - rolling pin-piece of pie (3)
  - a stocking-a foot (4)
  - fire hydrant-fireman's hose (1)
- Card 2
  - dog house-dog (3)
  - door knob & metal plate-house door (1)
  - lawn mower-long grass (4)
  - clothes pins-basketful of laundry(2
- Card4
  - tobaggon-snow covered hill (1)
  - slice of watermelon-whole watermelo (4)
  - bird bath-bird (3)
  - bass drum-bass drum beaters (2)
- Card 6
  - lumber pile-wood house (2)
  - acquarium-tropical fish (3)
  - cash register-coins and bills (4)
  - telephone pole-telephone (1)
- Card 8
  - gas station gas pump-family car (4)
  - peanuts in the shell-shelled peanut (3)
  - hammer and nails-pile of lumber (2)
  - roasted turkey-live turkey (1)
- Card 10
  - electric frying pan with cord-wall sockey (2)
  - cowboy's head-cowboy boots (4)
  - tape recording cassette-tape recorder (1)
  - wrist watch-clock (3)
- Card 12
  - western saddle-horse (3)
  - sprinkling can-vegetable garden (1)
  - vacuum cleaner-dust mop (4)
  - lighthouse-sailboat (2)

IMC Information

Commercial material: Trend Enterprises Set #T-141, Associations Wipe-Off cards are available from Warren's Educational Supplies, 1000 Detroit Ave., Concord CA, 94518, at $3.50.
Processing: Catalog Wipe-Off cards into library.

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be

The Book of Think by Marilyn Burns

This is a fun filled little book designed to sharpen your thinking skills, increase your awareness of yourself and your surroundings and to show you how to approach problems in new ways so that you don't "get in your own way" trying to use the same old approaches for all problems. You will read the book trying to do the puzzles, the tasks, and thinking exercises which it gives you. The book allows you to check out your own answers. When you have completed the book you will write three or more "brain teasers" of your own which can only be solved by thinking in a different way. You will have an opportunity to try them on other students.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the study...Check one out from the ICES file.
- **The Book of Think...Check it out of the Media Resource Center. It will be found under the call number 153.4-B.
- **paper and pencil

The work you turn in will be

☒ your three or more brainteasers.

I plan to write __________ brainteasers.

When you need help, see

Try to finish your study by

706

Turn in the finished work to

THINKING SKILLS
The Book of Think

Teacher Information

Grades 3 to 6 for one student

Time: 2-4 periods (perhaps more if the student chooses to do more than three brainteasers)

Assignment: Have the student fill in on the front of his contract how many brainteasers he will write. He need not decide this until he has finished the book. Be sure to allow him to try his creations out on other students. Also ask him to send copies of his brainteasers to the MGM Coordinator along with his student evaluation of the study. We may be able to make a book out of these at a later date.

IMC Information

Study: Cover and 1 page.

Commercial material: The paperback book The Book of Think from Little, Brown and Co., 34 Beacon Street, Boston, Mass. 02106 at $3.95 each.

Processing: Catalog the book into the library.

5/77

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be **Brain Boosters.**

This is a set of activity cards. For each card you solve correctly, you will earn points. Easy cards are worth 5 points each. More difficult problems earn 10, 15 or 25 points. Your assignment is to choose _____ cards which are worth _____ points each.

Materials you will need are

- **your copy of this contract...You will find it in the ICES file
- **The Brain Boosters card set...You will find it in the Media Resource Center with the call number KS-793.7-B
- **Pencil and paper...Be sure to do all the puzzles on your own paper...Do not write on the cards
- **A Brain Boosters student record card...Take one from the ICES file...If you do this assignment more than one time, use the same record card you had before

The work you turn in will be your student record card and your worksheets.

When you need help, see

Try to finish your study by 708

Turn in the finished work to

THINKING SKILLS
Brain Boosters

Teacher Information

Grades 3-6: for one or two students
Time: a student should complete from one to three cards in one period
Assignment: Be sure to fill in the number of cards and the point level on which the student should work. Points range from 5 to 25 points, as shown on the student contract. There are only 3 cards worth 25 points, but 12 cards at each of the other levels, or a total of 39 cards in all. A good beginning assignment is 3 cards at the 5-point level. This study may be assigned more than once.

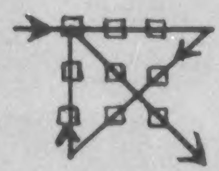
IMC Information

Consumable: Brain Boosters Student Record Card (run two per page and cut in half)
Additional teacher information: Answer pages (2 sides)
Commercial material: Brain Boosters Activity Cards, from Teacher's Exchange, 600-35th Avenue, San Francisco, CA 94121 or from Frank Schaffer, 26616 Indian Peak Road, Palos Verdes Peninsula, CA 90274; $4.95.
Processing: Catalog cards into the library after removing the student record card, suggestions card and four answer cards.

1/75

SOLUTIONS

1.



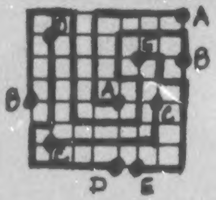
2. HANK-PANKS:
1) strange range
2) grave brave
3) sad dad
4) lone cone

HANKY-PANKIES:
1) jolly polly
2) finer liner
3) taller caller
4) slower mower

3.

$3 - 3 \times 3 = 0$
$(3 + 3) \div 3 = 2$
$3 - 3 + 3 = 3$
$3 \div 3 + 3 = 4$
$3 \times 3 - 3 = 6$
$3 + 3 + 3 = 9$
$3 \times 3 + 3 = 12$
$3 \times 3 \times 3 = 27$

13.



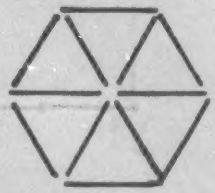
14. HANK-PANKS:
1) large barge
2) bare square
3) fat rat
4) pale whale

HANKY-PANKIES:
1) witty ditty
2) stable table
3) fainter painter
4) crystal pistol

15.

$(4 \div 4) + 4 - 4 = 1$
$(4 \times 4) \div (4 + 4) = 2$
$[(4 \times 4) - 4] \div 4 = 3$
$[(4 - 4) \times 4] + 4 = 4$
$(4 \times 4 + 4) \div 4 = 5$
$[(4 + 4) \div 4] + 4 = 6$
$(44 \div 4) - 4 = 7$
$(4 \times 4) - 4 - 4 = 8$

25.



26. HANK-PANKS:
1) bright light
2) prime time
3) bleak peak
4) waste paste

HANKY-PANKIES:
1) legal beagle
2) greater debater
3) bigger digger
4) floral coral

27.

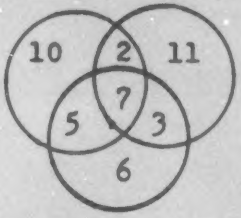
$$\begin{array}{r} 888 \\ 88 \\ 8 \\ 8 \\ \underline{8} \\ 1000 \end{array}$$

$11\frac{11}{11} = 12$

$9 - 9 + 9 = 9$
$\frac{9}{9} + 9 = 10$
$99 \div 9 = 11$

⑤ ⑩ **SOLUTIONS** ⑮

9.



44 boys

10.

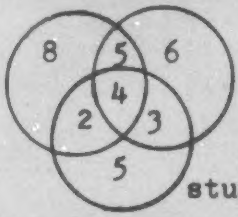
SWIMMING
BASEBALL
GOLF
FOOTBALL
WRESTLING
DIVING
HOCKEY

F I T N E S S

11.

I	II	III
19	700	30
48	56	8
31	210	80
99	28	500
n-2	nx7	n÷2

21.



33 students

22.

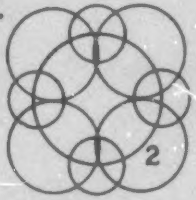
SHOTPUT
INNINGS
KICKOFF
DRIBBLE
DIAMOND
UPPERCUT
EIGHTEEN
BADMINTON

C H A M P I O N

23.

I	II	III
34	10	360
10	7	25
38	2	160
22	4	20
nx4+2	n÷3+1	nx5+10

33.



The numbers in all circles add up to 50.

34.

COURT
MARATHON
GYMNASTICS
FIRSTDOWN
ESCAPE
SPRINTS
CLEATS
LOVE

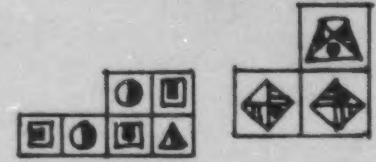
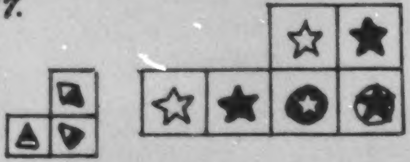
O L Y M P I C S

35

I	II	III
0	36	110
9	9	41
6	81	310
2	1600	2000
n÷2-9	nxn	Base 5

⑤ ⑩ ⑮

SOLUTIONS

4. 1) inch 4) true 2) harpoon 5) boat 3) guitar 6) Richmond BRIGHT	**16.** 1) Tokyo 4) Yes 2) Two 5) Intelligence 3) W. Va. WITTY	**28.** 1) Cartier 4) expand 2) Red Sea 5) etc. 3) Labrador 6) vertebrates CLEVER
5. 	**17.** 	**29.** 1) A, C, E 2) A, C, D, E 3) B, C 4) D
6. 1) bear 5) spider 2) Africa 6) oak 3) harp 7) novel 4) cube	**18.** 1) Rams 5) nylon 2) cabbage 6) drums 3) Italy 7) triangle 4) courage	**30.** 1) Cairo 4) Sirius 2) skein 5) hydrogen 3) discordant 6) crescendo 7) idea
7. 1) 28, 35 5) 1, 0 2) 15, 0 6) 128,256 3) 11, 14 7) 23, 26 4) 48, 66	**19.** 1) 2, 8 5) 158, 318 2) 32, 34 6) 16, 5 3) 23, 46 7) 3, 4 4) 36, 49	**31.** 1) 4, 10 5) 9, 15 2) 34, 55 6) 8, 1 3) 5, 30 7) 64, 9 4) 13, 11
8. 1) bad 5) alley 2) nose 6) greatest 3) sheep 7) sat 4) cut	**20.** 1) elbow 4) wail 2) chirp 5) bough 3) rough	**32.** 1) domestic 4) decade 2) curt 5) revolve 3) penalty

⑤ ⑩ SOLUTIONS ⑮

12. 1) Yes, and everywhere else, too!
2) All of them!
3) Nine.
4) Not while he's dead.
5) One.
6) He has to be dead first.

24. 1) None. It was Noah who built the Ark.
2) You don't bury survivors.
3) 75¢. (Count the cuts.)
4) A half-dollar and a nickel.
5) One.

36. 1) 1 hour: from 8 p.m. to 9 p.m.
2) The match!
3) The beggar is a woman.
4) No. B.C. (Before Christ) could only be known about later.

37. **BONUS CARD**

	M	A	T	A
Mr. Smith	O	O	X	O
Mr. Brown	X	O	O	O
Mr. Jones	O	O	O	X
Mr. Foster	O	X	O	O

Mr. Smith.....Teller
Mr. Brown.....Manager
Mr. Jones.....Auditor
Mr. Foster..Accountant

38. **BONUS CARD**

	G	S	T	G	F	H
Slim	O	O	X	O	X	O
Happy	O	O	O	X	O	X
Doc	X	X	O	O	O	O

Slim......Tennis and Fencing
Happy.....Hockey and Gymnastics
Doc.......Golf and Skiing

39. **BONUS CARD**

	D	C	A	H	C	B
	C	K	A	H	I	M
Sue	O	O	X	O	O	O
Peter	O	X	O	O	O	O
David	O	O	O	X	O	O
Linda	O	O	O	O	X	O
Judy	X	O	O	O	O	O
Bobby	O	O	O	O	O	X

Sue....Alaska
Peter..Florida
David..Hawaii
Linda..Illinois
Judy...Washington, D.C.
Bobby..Massachusetts

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Can You Imagine by R. E. Myers and E. Paul Torrance

Twenty-three units designed to stimulate the imagination of primary children. Many "crazy" questions asked get children out of the rut of stereotyped thinking. You may choose the whole book or just some of the units. Be sure to write your answers on a separate sheet of paper, not in your book.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the booklet Can You Imagine...You will find it in the Media Resource Center under the call number 153.3-M.
- **lined paper and pencil
- **drawing paper

The work you turn in will be

☐ The work the book asks you to do.

☐ List units selected ______________________________

____

☐ Entire booklet.

When you need help, see

Try to finish your study by

Turn in the finished work to 714

THINKING SKILLS
Can You Imagine

Teacher Information

Grades 1-3 for one student

Time: One to ten periods depending on how many units are selected.

IMC Information

Commerical material: The paperback booklet is available from Ginn and Company, 2550 Hanover Street, Palo Alto, Ca. 94304.

Processing: Catalog the booklet into the library.

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Centuous Math. You can __either__ use the Centuous Math task cards __or__ pages 38 to 59 of the Centuous Math book. Solve as many puzzles as you can in an hour and a half. If you want to do more of them, make a contract with your teacher for a new date to finish. If you have not done them all by that time and wish to do more, perhaps you can arrange still another date to finish. Be sure you write the numbers of the pages or task cards you do under "Work Done" on the back of this contract.

Materials you will need are
**your copy of this contract--Take one from the ICES file.
**the Centuous Math Task Cards--Find them in the Media Resource Center under the call number KS-793.7-C.
__OR__ the book Centuous Math--Find it in the Media Resource Center under the call number 793.7-G.
**coins (10 pennies, 5 nickels, 14 dimes, 9 quarters, 5 half dollars and 5 silver dollars)
__OR__ a Centuous Math Coin Sheet...Take one from the ICES file.

The work you turn in will be a demonstration.

You must solve the most difficult puzzle (the one __you__ found the hardest to solve) for your teacher (or anyone else your teacher asks to watch you). This means you must be able to remember how you did it. You may want to write down the steps in some way you will be able to understand and look at if you get stuck. And you may want to practice more than once before you take your work to the teacher!

When you need help, see

Try to finish your study by

Turn in the finished work to

716

THINKING SKILLS
Centuous Math

Teacher Information

Grades 4-6; one student

Time: see instructions to student

Assignment: see instructions to student

IMC Information

Consumable: Centuous Math Coin Sheet (one side)

Additional teacher information: Answers (one side)

Commercial material: The book and task cards come together. The task cards duplicate only pages 38 to 59--the "Centuous Math" chapter from the book. The set is available from Teacher's Exchange in San Francisco or from Thinkisthenics, P. O. Box 1180, Palm Springs, CA 92262, at $5.95.

Processing: Catalog the task cards into the library separately from the book. Remove 68-70 and 73-74 from the book. In note position on the catalog cards, state that these pages have been removed. Put the book into a 3-ring binder. Process it for the library.

3/75

THINKING SKILLS
Centuous Math
Answers

ANSWERS TO CENTUOUS MATH

Key
M = Move
J = Jump
N = Nickel
D = Dime
5-3 - means box 5 to box 3

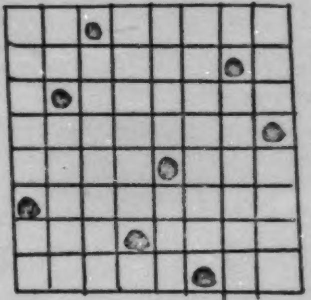
38

1) J.N. 4-5
2) J.D. 6-4
3) M.D. 7-6
4) J.N. 5-7
5) J.N. 8-5
6) M.N. 2-3
7) J.D. 4-2
8) J.D. 6-4
9) J.D. 8-6
10) M.D. 9-8
11) J.N. 7-9
12) J.N. 5-7
13) J.N. 3-5
14) J.N. 1-3
15) M.D. 2-1
16) J.D. 4-2
17) J.D. 6-4
18) J.D. 8-6
19) M.N. 7-8
20) J.N. 5-7
21) J.N. 3-5
22) M.D. 4-3
23) J.D. 6-4
24) M.N. 5-6

∽

39

You need to only touch the center coin in the top row (the quarter) Move it up and then down around the right side of the figure so that it is just under the center coin of the middle column. Now push up the entire middle column until the coin you are touching is between the other two coins in the bottom row. The puzzle is solved and you have Touched only one coin.



56

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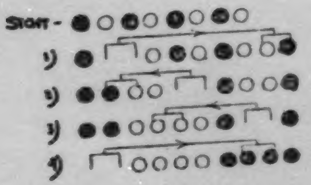
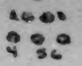


57

∽

58

1. Nickel left
2. Dime down
3. [illegible] right
4. [illegible] up
5. [illegible] right
6. Penny down
7. Nickel left
8. penny left
9. dime up
10. penny right
11. penny down
12. Nickel right
13. penny up
14. penny left
15. penny left
16. Dime down
17. Nickel right



4 to touch 5 and 6. Next move 5 to touch 1 and 2 Below - move 1 to touch 2 and 5.

40

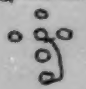
∽

41

1. Move coins 2 and 3 to the far right next to marked coin 8
2. Fill the empty spaces with coins 5 and 6
3. Next fill the spaces where 5 and 6 were with coins 2 and 8
4. Finally move coins 1 and 5 into the empty spaces.

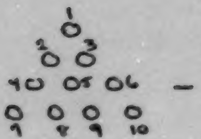
∽

This is an easy one. Just pick up the bottom dime and put it on the middle one



42

∽



43

Move coin #7 to the left of coin #2. Coin 10 to the right of coin 3 and then coin 1 to a point below and between coins 8 and 9.

∽

Key:
Nickel = 1
penny = 3
half dollar = 5
quarter = 4
dime = 2

44

1	4	3	2	5
4	3	2	5	1
3	2	5	1	4
2	5	1	4	3
5	1	4	3	2

1) put coin 4 on 1
2) put 6 on 9
3) put 8 on 3
4) put 2 on 5
5) put 7 on 10

52

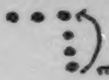
∽

53

Move the nickel on the left over to the right end of the row. Thus the position of the original middle coin is changed since it is now at the left end of the row.

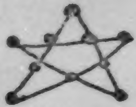
∽

54



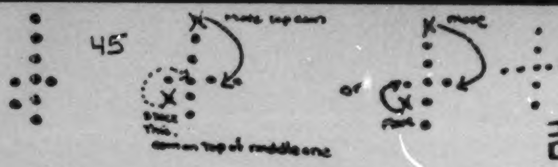
move the lowest coin and place it on top of the corner coin

∽



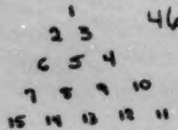
55

∽



45

∽



46

Space #1 is empty when you Begin!

1) 6-1
2) 15-6
3) 3-8
4) 10-3
5) 11-13
6) 14-12
7) 1-4
8) 4-13
9) 12-14
10) 15-13
11) 7-2
12) 13-6
13) 2-7

47

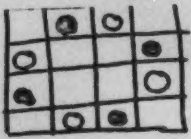
∽

1. Slide the penny
2. Jump the penny with the dime
3. Slide the dime
4. Jump the dime with the penny
5. Jump the other dime with the other penny
6. Slide the dime
7. Jump the penny with the dime
8. Slide the penny you just jumped

∽

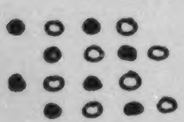
48

● = quarter
○ = nickel



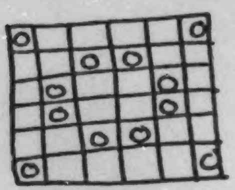
∽

49



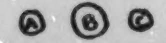
Nobody said they had to be straight rows - They often a slant!

∽



50

∽



51

1) Turn over coins B and C
2) Turn over coins A and C
3) Turn over coins B and C

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Individualized Game and Puzzle Cards.

Do _____ cards from the _________ color section. Be sure to write down the number and color of each card you work on under "Work Done" on the back of this contract sheet. Then do whichever of the following is checked:

☐ Be sure that one card you choose is one you need to use pencil and paper to figure out. Show your work to your teacher and be able to explain how you went about finding the answer.

☐ Make a new puzzle. Try it out on five students. See if you can make it hard enough that two or less can figure it out in 15 minutes.

Materials you will need are

**your copy of this contract--Take one from the ICES file.
**Individualized Game and Puzzle Cards...You will find them in the Media Resource Center under the call number GA-793.7-I.
**pencil and paper.

The work you turn in will be your puzzle solution, or the new puzzle you make up--whichever is checked at the top of this contract sheet.

When you need help, see

Try to finish your study by

Turn in the finished work to 720

THINKING SKILLS
Individualized Game and Puzzle Cards

Teacher Information

Grades 3-5; for one student

Time: Some students will be able to finish several cards in one period; most cards will require about a period each.

Assignment: Indicate the number of cards to be completed in which color section. There are 15 cards of each color. Colors are blue, yellow, pink, green and orange. A reasonable first assignment would be 5 cards. Be sure to indicate which written work the student is to complete. This study may be assigned more than once, until all 75 cards have been done. Answers are given on the back of the card, if there is "an" answer.

IMC Information

Commercial Material: The card set is available from Teacher's Exchange in San Francisco or from Stan Laird, 27948 Farm Hill Drive, Hayward, CA 94542 for $4.95.

Processing: Remove the folder of ideas for the teacher. Process the card set for the library.

3/75

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be **For Those Who Wonder** by R. E. Myers and E. Paul Torrance

A booklet containing 22 units designed to stimulate original thinking and creativity. You may choose to do the entire book or just some of the units. Be sure to write your answers on a separate sheet of paper, not in your book.

Materials you will need are

**your copy of this contract...take one from the ICES file.
**the booklet For Those Who Wonder...You will find it in the Media Resource Center under the call number 153-M.
**lined paper and pencil.

The work you turn in will be

☐ The work asked for in the units you have selected.
☐ List numbers of units selected ______________________________

☐ Entire booklet.

When you need help, see

Try to finish your study by

Turn in the finished work to

722

THINKING SKILLS
For Those Who Wonder

Teacher Information

Grades 3-6 for one student.

Time: One to ten periods depending on number of units selected.

The teacher's guide gives the rationale for each unit and includes ideas for follow-up.

IMC Information

Commercial material: The paperback booklet is available from Ginn and Company, 2550 Hanover Street, Palo Alto, Ca. 94304.

Processing: Catalog booklet into the library.

11/76

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Invitations to Speaking and Writing Creatively
by R. E. Myers and E. Paul Torrance

Twenty-one units designed to stimulate your imagination and make you use what you have between your two ears. You may choose to do the entire booklet or just select the units which appeal to you. Make sure you write your answers on a separate sheet of paper, not in the book.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **a copy of the booklet Invitations to Thinking and Writing Creatively. You will find it in the Media Resource Center under the call number 808-M.
- **paper and pencil.

The work you turn in will be

☐ The work the booklet asks you to do.
☐ List units selected____

☐ Entire booklet.

When you need help, see

Try to finish your study by

Turn in the finished work to

724

THINKING SKILLS
Invitations to Speaking and Writing Creatively

Teacher Information

Grades 5 & 6; for one student

Time: One to ten periods depending on the number of students.

IMC Information

Commercial material: The paperback booklet is available from Ginn and Company, 2550 Hanover Street, Palo Alto, Ca. 94304.

Processing: Catalog booklet into the library.

11/76

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be

Invitations to Thinking and Doing by R. E. Myers and E. Paul Torrance.

Twenty five invitations to do excercises designed to stimulate your mind. Select the ones that appeal to you. Be sure to write your answers on a separate sheet of paper, not in the book.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the booklet Invitations to Thinking and Doing...Check it out of the Media Resource Center...It is cataloged under the call number 153-M.
- **paper and pencil.
- **tracing paper (for Unit I only).

The work you turn in will be

☐ your answers to the units selected

☐ List units selected ____________________

☐ Entire book

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Invitations to Thinking and Doing

Teacher Information

Grades 3-6 for one student

Time: 1 to 12 periods depending on how many units are selected.

The teacher's guide furnishes some answers. However, most units are designed to stimulate original thinking.

IMC Information

Commercial material: The paperback booklet is available from Ginn and Company, 2550 Hanover Street, Palo Alto, Ca. 94304.

Processing: Catalog booklet into the library.

11/76

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Logic Links

You will learn how to make and use a "matrix" to solve confusing problems. You will find out whether you have really learned this or not by seeing if you can solve sixteen logic problems which were written by 7 and 8 year old boys and girls in the Torrance School District in southern California. If you like this study you may choose to write a logic problem of your own which may become a part of a similar ICES study which will contain problems written by boys and girls in Lafayette. Sounds like fun, doesn't it?

Materials you will need are

**your copy of this contract...Take one from the ICES file.

**a copy of this study...You may check one out from the ICES file.

**paper.

**pencil.

**ruler.

The work you turn in will be

☒ your answers to the sixteen logic problems in this study.

☐ your own logic problem with a filled in matrix showing the answers (if you choose to write your own problem).

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Logic Links

Teacher Information

Grades 2-4; for one student.

Time: four or more periods.

Assignment: This study is a good lead-in for younger students to a study containing more difficult logic problems titled Whodunit?

IMC Information

Study: Cover and 11 pages.

Additional teacher information: Answer sheet (2 sides).

Processing: Xerox answer sheets back to back.

4/78

ANSWER PAGE

1. Coats

Jack - 7 years - black coat with blue buttons
Terry - 5 years - grey coat

2. Presents, Presents, Presents

Tommy - blue dragster
Timmy - purple truck
Terry - red fire engine

3. Pianos

Jenny - 9;00
Jessica - 5:00
Robert - 3:00

4. Fruit

Tom - 7 years - apples
Eric - 10 years - oranges
Susan - 8 years - bananas

5. Books, Books, Books

Kelly - 5 years old - Three Little Pigs
Tommy - 6 years old - Robin Hood
Karen - 7 years old - Peter Pan

6. Who Ate Ice Cream:

Sally - Wheat Chex and ice cream
Lisa - Pebbles
Tim - Cocoa Puffs

7. Who Lived Where?

Cathy - orange house on Maple
Brian - brown house on Lake Street
Joann - red house on Anza

8. Who Played Hockey?

Jimmy - 10 years old - hockey
Bob - 9 years old - baseball
Kenny - 12 years old - football

9. Stores

Henry - 29 years old - K-Mart
Jim - 24 years old - Two Guys
James - 21 years old - Toys R Us

10. Black Shoes

Benny - blue shoes - 5 years old
Andy - stripe shoes - 7 years old
Don - black shoes - 9 years old

11. Who Was The Blond?

Karen - brown hair - 11 years old
Ann - black hair - 9 years old
Susan - blond hair - 7 years old

12. Who Wore Glasses?

Donald - red hair - glasses
Alice - blond hair - broken arm
Jimmy - brown hair - braces

13. Playmates

Mark - 10 years old
Paul - 3 years old
Mary - 5 years old
Brian - 8 years old

14. Piano

Mike - 15 years old - flute
John - 12 years old - piano
Jeff - 19 years old - guitar

15. Christmas Day

Sue - 12 years - bike
Kathy - 9 years - storybook
LeRoy - 5 years - Tinker Toys

16. Hair, Hair, Hair

Carrie - 5 years - red hair
Dave - 7 years - brown hair
Timmy - 6 years - blond hair
Karen - 9 years - black hair

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be The Productive Thinking Program

This is a set of 15 non-consumable workbooks that teaches you to use your mind as a detective would in solving interesting problems. Do the work checked by your teacher.

☐ Do all the workbooks in order

☐ Work ____ minutes a week on this study

☐ Work in workbooks ________________ only this semester

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the workbook you are working in...Kept in the Library Resource Center. Do not remove from the center. You will find it under the call number KS-153.4-P.
- **pencil and notebook, some large drawing paper when called for.
- **special dittos when you are ready for them...Ask the ICES resource person.

The work you turn in will be a notebook containing the work assigned in each workbook.

When you need help, see

Try to finish your study by 732

Turn in the finished work to

THINKING SKILLS

The Productive Thinking Program

Teacher Information

Grades 4-6; for one student.

Assignment: The student must begin with the first book and go through the series in order. There should be no skipping about. The student can be assigned a certain number of workbooks for a semester or can be assigned by how much time per week or day he should be spending on it.

The student must not write in the workbook but should do his work in a notebook.

This study stresses Evalutive and Divergent thinking as well as memory, cognitive thought and convergent thinking.

IMC Information

Commercial material: Workbooks, ditto master and teacher's guide are available from Charles E. Merrill Publishing Co., A Bell & Howell Co., Columbus, Ohio, 43216 at $150.00 a set.

Processing: Catalog set into the library.

9/77

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be

Reading, Thinking and Reasoning Skills Program by Don Barnes, Arlene Burgdorf and L. Stanley Wenck.

A systematic program for developing critical thinking and reasoning skills. Forty separate skills are presented and developed in the program. There is a workbook for each of the six levels in the program.

Sunshine - Level 1 - 62 lessons
Whispers - Level 2 - 62 lessons
Clouds - Level 6 - 77 lessons
Raindrops - Level ~~4~~ 3 - 62 lessons
Footsteps - Level 4 - 78 lessons
Snowflakes - Level 5 - 78 lessons

Together with your teacher you will select the appropriate level. Your contract will be either for the whole program at your level or for the lessons that cover the particular skills you wish to develop. You will do the work asked for in the workbook and write answers to the questions on a separate sheet of paper.

Materials you will need are

- **your copy of this contract...Take one from the ICES file.
- **the Reading, Thinking and Reasoning Skills Workbook of the appropriate level...You will find it in the Media Resource Center under the call number 153.4-B.
- **pencil and paper.

The work you turn in will be

☐ Answers to the work you are asked to do in
    ☐ the entire workbook. List the name of the book ____________________
    ☐ specific lessons. List by number ____________________

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Reading, Thinking and Reasoning Skills Program

Teacher Information

Grades 1-6 (one workbook for each level) for one student

Time: One period to a semester depending on amount included in contract.

Assignment: The teacher may wish to zero in on a particular skill in which assignments may be made at several levels, or the entire workbook can be assigned. In as much as the answers are contained in the teacher's editions, the teacher must either check out the teacher's edition for a time or direct the pupil to turn the work in to the MGM resource aide (the aide keeping the teacher's edition). The 40 skills included in the program are listed below:

Anticipating Probabilities
Building Hypotheses
Changing Forms of Concepts
Classifying
Comparing and Contrasting
Comparing Word Meanings
Conducting Projects
Detecting Ambiguity
Detecting Assumptions
Determining Alternate Actions
Developing Conclusions
Developing Criteria
Discriminating between Definition and Example
Discriminating between Fact and Opinion
Discriminating between Real and Fanciful
Estimating
Evaluating Value Conflicts
Identifying Main Ideas
Identifying Relationships among Events
Identifying Relevant Principles
Identifying Steps in a Process
Identifying Structure
Inferring
Interpreting Changes in Word Meanings
Interpreting the Mood of a Story
Judging Abstract or Concrete
Judging Completeness
Judging Elements of a Selection
Judging Importance of Information
Judging Logic of Actions
Judging Relevance of Information
Judging Story Logic
Ordering Objects
Outlining and Summarizing
Recognizing Either-Or Fallacies
Recognizing False Analogies
Recognizing Guilt by Association
Recognizing Slanted Arguments
Testing Generalizations
Understanding Figural Relationships

In the back of each teacher's edition is a skills sequence chart showing at what level a particular skill is introduced. It is quite helpful in developing a contract for a particular student for whom the teacher may wish to select materials from several levels.

Please note that in Sunshine and Whispers (Level 1 & 2) someone must explain each lesson to the student before he works on it independently. At the other levels the student can read the directions.

IMC Information

Commercial material: The workbooks can be ordered from Steck-Vaughn Company, P. O. Box 2028, Austin, Texas 78767.

Processing: Catalog workbooks into the library.

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Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Think-a-Bit.

Choose ______ cards to work on. Write the number of each card you choose on the back of this contract. Do not write on the cards. See if there are copies in the ICES file of the cards you want.

If so, use one of each.

If not, ask your teacher to get copies for you.

Be sure to put all the cards back in the box as soon as you finish looking at them.

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**a Think-a-Bit score card. Take one from the ICES file. If you do more of these cards another time, use the same score card.
**the Think-a-Bit card set. You will find it in the Media Resource Center under the call number KS-153.4-T. Remember: do not write on the cards.
**a pencil and copies of the cards you choose.

The work you turn in will be your finished puzzles.

When you finish a card, find its number on your score card. Color in that part of the picture. Show your score card to your teacher when you turn in your work.

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Think-a-Bit

Teacher Information

Grades 1-3; one or two students

Time: a student should complete one to three cards in a period.

Assignment: There are 48 cards in the set, calling for simple logic and pattern recognition. Some require reading ability and understanding of numbers, but 14 deal with shapes only.

Fill in the number of cards the pupil should do; six to twelve cards would probably be a good initial assignment. The study can be repeated until all 48 cards have been done; the same score card should be retained and used if the study is assigned more than once. Copies of the cards may be ordered from IMC if the supply in the ICES file has been exhausted.

IMC Information

Consumables: Think-a-Bit score card (run two per sheet of paper and cut in half.)

Schools will order replacement copies of cards (run on paper) as needed; send 10 copies of any card ordered, along with note asking the ICES person to place extras in the envelope in the ICES file. (One set of cards is kept at IMC as masters for zeroxing.)

Commercial material: Card set available from The Wise Owl, Torrance, CA 90505 or from Teacher's Exchange of San Francisco, 600-35th Avenue, San Francisco, CA 94121 at $4.95.

Processing: Remove teacher's introduction, ruled card and score card. Catalog into the library.

8/75

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Thinklab

This is a series of 125 cards containing problems and puzzles of different difficulties and designed to "strain your brain" a bit. That is, you will have to use what you have between your ears in order to solve them. You will select one or more of these cards to solve. You will write or draw your answers. If you choose to do a number of these you will keep track of which cards you have completed on a "Thinksheet."

Materials you will need are

**your copy of this contract...Take one from the ICES file.
**the cards you have selected from the Thinklab...This is located in the Media Resource Center under the call number KS-153.4-T.
**pencil
**paper
**a "Thinksheet" if you plan to do a number of these problems...You may get one from the ICES file.

The work you turn in will be

☒ your answers to the problem cards you have selected. I agree to do card numbers___

When you need help, see

Try to finish your study by

Turn in the finished work to

THINKING SKILLS
Thinklab

Teacher Information

Grades 2-6; for one or more students. While a number of students can work in this kit at the same time (there are four copies of each problem card) they must work independently, not in groups.

Time: One to many periods depending on number of cards selected and how fast the student can figure out the solutions.

Assignment: There are 125 creative and logical problem-solving activities in the program and these activities are carefully arranged in a cognitive sequence. There are five different types of cognitive problems, distinguished by five different colored cards In the box, these five different types are arranged throughout in groups of ten. That is, numbers 1 to 10 are one type of cognitive problem, numbers 11 to 20 a different type; 21 to 30 are still different, as are 31 to 40. Numbers 41 to 50, however, are the same type as 1 to 10, numbers 51 to 60, the same type as 21 to 30, and so on. The fifth type occurs in 91 to 100 and 111 to 125.

Each group of ten is progressive in cognitive difficulty. That is, #28 is probably more fifficult cognitively than #22. But to reward and encourage the student, this progression of difficulty obtains only within groups of ten. Therefore #52 (early in a sequence of ten). Every time a student starts a new group of ten, therefore, he is usually encouraged by successful solutions.

Thus if the student finds #78 or #79 difficult, or even impossible, he is usually given a fresh start by #81 and #82, which are relatively simple. There is always the opportunity to begin again.

Further, the problems are independent of one another. The student does not have to solve #43 in order to solve #44.

There are:

1. Object manipulation (blue cards)
   —ways and means of dealing with specific data
2. Perception (orange cards)
   —extrapolation from, and beyond, given data
3. Creative insight (green cards)
   —developing abstract relationships from given data
4. Perceiving image patterns (red cards)
   —analysis of pattern and structure
5. Logical analysis (purple cards)
   —absorbing multiple data, testing hypotheses and planning a set of operations

Teachers will note that these abilities are all from the middle and upper levels of the Bloom Taxonomy. Kit also contains plastic sticks and discs for the manipulative puzzles.

IMC Information

Consumable: Thinksheet

Additional material: answer sheets (5 sides).

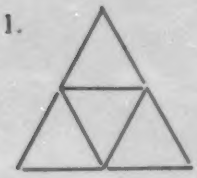
Processing: Remove student progress cards, teachers guide and answer keys. Xerox answer sheets 2 pages one side of 8½x11 sheet back to back. Place immediately following teacher sheet. Catalog kit into Media Resource Center.

9/77

POSSIBLE ANSWERS

A good thinker can often find more than one useful solution to a problem. The answers below are not necessarily the only answers to the questions in Thinklab™.

1.



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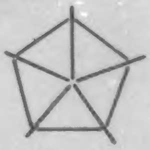

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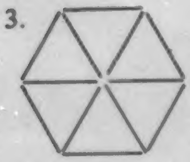

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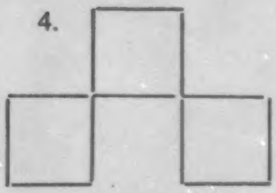

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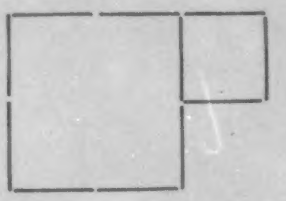
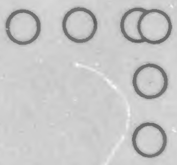
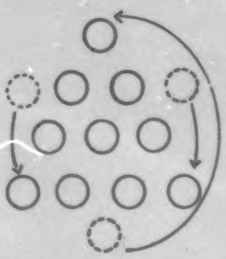


6.

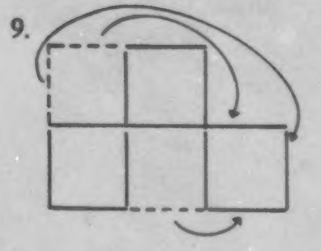


7.



8. Move the left disc to the right of the right disc.

9.



11. One was the mother.

12. They were two of triplets.

13. They are the same distance away when they meet.

14. A man cannot outlive his widow.

15. The tube should dissolve.

16. A cube has 6 faces.

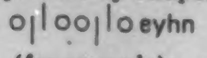
17. 3100

18. Mrs. Bogden's barrels were empty.

19. The friend was her mother.

21. $\dfrac{\text{H I}}{\text{G}}$ (straight lines) (curved lines)

22. The sequence operates by shape:



(for example)

23. F, S (one, two, three, four, five, six)
C, S (French or Spanish)

24. After fifty-nine seconds

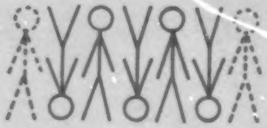
25. 77 times

26. 99 9/9

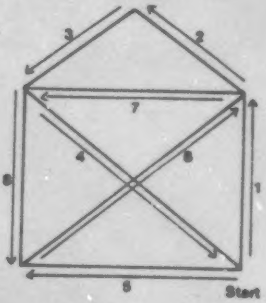
27. Take one nut from each of the other wheels.

28. Two

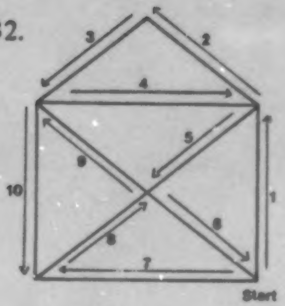
29. 5, 6, or 7



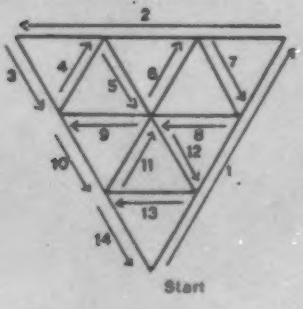
31.


3
2
7
4
8
6
1
5
Start

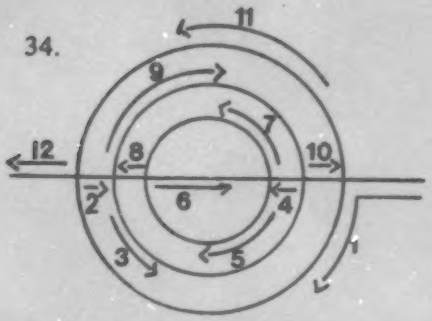
32.


3
2
4
5
9
10
1
6
8
7
Start

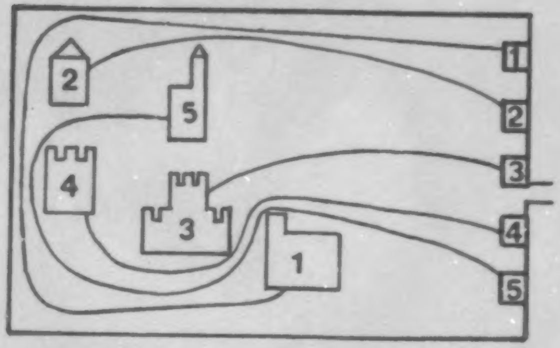
33.


2
3
4
5
6
7
9
8
12
10
11
1
13
14
Start

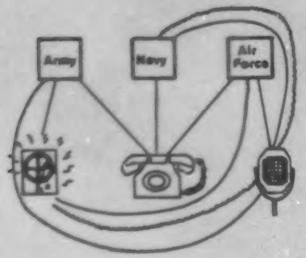
34.


11
9
7
12
8
10
2
6
4
3
5
1

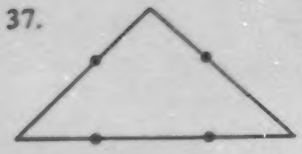
35.


2
5
4
3
1
1
2
3
4
5

36. The line must go underneath the radio station or one other station.

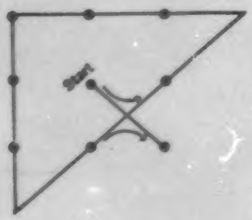


37.



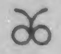
Other solutions possible

38.



39. 30

40. (mirror image of numbers)



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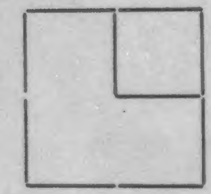

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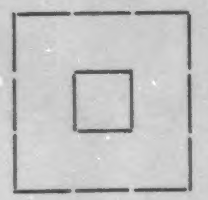

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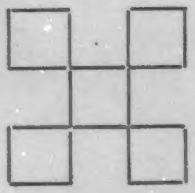
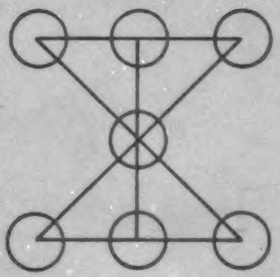


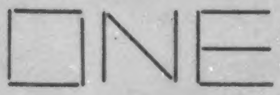
44. Invert the outside coins 3 times.

45.

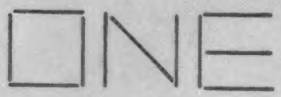


Other solutions possible

46.



47.



48. Put 4 on 1; 6 on 9; 8 on 3; 2 on 5; 7 on 10.

49. Always cover the point from which the previous disc was started. E.g., if you went 6 to 1, your next move has to be 3 to 6.

51. Once

52. In 42 B.C. the years were not called B.C.

53. Grandmother
Mother (daughter)
Daughter

54. One

55. He pulled the plug.

56. The spare tire was flat.

57. Three minutes

58. A new word

59. If she had died as he said, he would not have known her dream.

61. 35

62. None. The boat will rise with the tide.

63. They face each other.

64. Let air out of the tires.

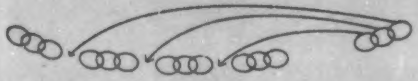
65. She placed the sign upright with Silver Falls pointing to Silver Falls.

66. B: 123456789
C: 864197532

67. Burn the bag.

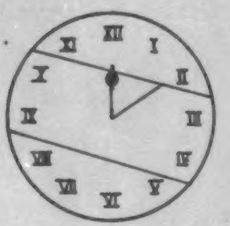
68. 100 km

69.

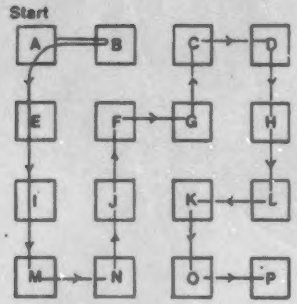


70. Is this your country?

71.

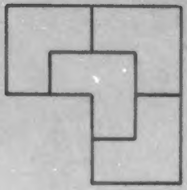

XII
I
II
III
IIII
V
VI
VII
VIII
IX
X
XI

72.

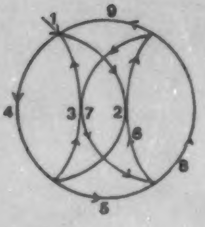

Start
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

Other solutions possible

73.

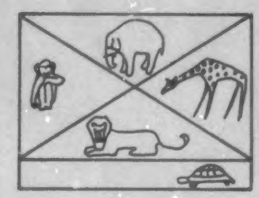


74.

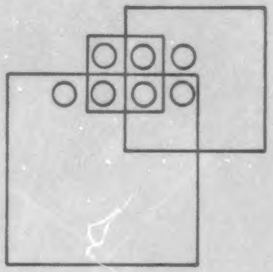


Other solutions possible

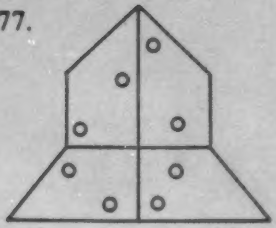
75.



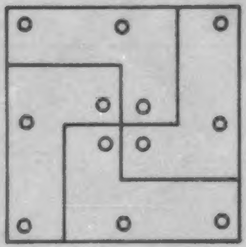
76.



77.



78.



79.

			×		○
	×		×		
				×	×
×	×				
		×		×	
○		×			

80. (a) 1 into blank
(b) 2 into 1
(c) 3 into 2
(d) 1 into 3
(e) 2 into blank
(f) 6 into 1
(g) 5 into 6
(h) 3 into 5
(i) 1 into 2
(j) 2 into 3
(k) 6 into blank
(l) 5 into 1
(m) 3 into 6
(n) 1 into 5
(o) 2 into 2
(p) 4 into 3
(q) 8 into 4
(r) 7 into 8
(s) 1 into 7
(t) 2 into 5
(u) 4 into 2
(v) 8 into 3
(w) 7 into 4
(x) 4 into 8
(y) 5 into 2
(z) 6 into 1

81. The match

82. Survivors are not buried.

83. She was inside a building.

84. ¼

85. No one can read the sign under water.

86. Erica could hear her directions.

87. 1 + 1 + 1 + 1 + 11

88. They did not play each other.

89. They went through at different times.

91. 2 spades, 3 spades, 3 hearts

92. Wednesday

93. Four daughters and three sons

94. 2 boys, 2 girls, their parents, their mother's parents, their father's parents

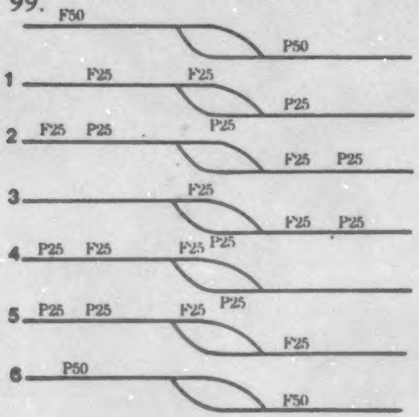
95. Thirteen

96. Jack and Jean
Bruce and Mindy
David and Carol

97. Clear

98. Jackie wore yellow. Michael liked Shirley best.

99.



100. 100
- (a) Invert second and third spoons
- (b) Invert third and fourth spoons
- (c) Invert fourth and fifth spoons

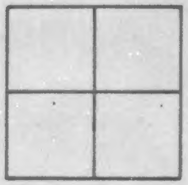
Other solutions possible

101. 5 mm

102. He piled the earth until he could reach the skylight.

103. White (His camp was at the North Pole)

104. 5



105. 25

106. He placed 11 in one box, 7 in one box, 3 in one box. Then he placed these 3 boxes in one larger box, which then held 21 jewels. Other combinations are possible.

107. 8
(7x7 = 49)
(4x9 = 36)

108. If B is telling the truth, both motors will be warm.

109. Heat the valve and watch for escaping water vapor.

111. Place 3 and 3; if they balance it's one of the remaining two. If one side goes down, weigh 2 of that three.

112. Fill 5. From it fill 3. This leaves 2 in the 5. Pour out the 3. Pour the 2 from the 5 into the 3. Fill 5. From it, pour into the 3 until it is full. 4 *l* will be left in the 5.

113.
- (a) She took the anteater across.
- (b) She took the ants across.
- (c) She brought the anteater back.
- (d) She took the leopard across.
- (e) She returned for the anteater.

114.
- (a) Two prisoners cross. One gets out.
- (b) The other returns and takes the third prisoner across.
- (c) One prisoner comes back and gets out.
- (d) Two soldiers cross and one gets out.
- (e) One prisoner and one soldier come back.
- (f) The prisoner gets out and the remaining soldier gets in.
- (g) Both soldiers cross and get out.
- (h) One prisoner comes back

and two cross.
(i) One soldier returns to get the remaining prisoner.

115.

8	1	6
3	5	7
4	9	2

116.

16	2	3	13
5	11	10	8
9	7	6	12
4	14	15	1

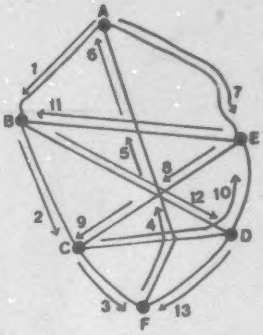
117. Roberts owns fewer than Smith. Curran owns fewer than Jackson. Stevenson owns more than Brock. Jackson owns more than Roberts. Brock owns more than Curran.

118. James is oldest. Trent is youngest.

119. It is 11:57.

121. Black - teller
Brown - manager
White - auditor
Green - accountant

122.



123. 1, 2, 4, 8, 15 cm From these they made change.

124. 1, 3, 9, and 27 kg

125. Norwegian - water
Japanese - zebra

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Weeple People by D. Craig Gillespie
An ESS Attribute Book

You are asked to find the common attributes of many strange characters.

Materials you will need are

- **you copy of this contract...Take one from the ICES file
- **the booklet Weeple People...You will find it in the Media Resource Center under the call number 153.4-G.
- **pencil and unlined paper

The work you turn in will be

☐ A list of the attributes of each family of Weeple People.

☐ A completed Draw Your Own Weeple People booklet.

☐ A game using your own Weeple People creations.

When you need help, see

Try to finish your study by

750

Turn in the finished work to

THINKING SKILLS

Weeple People

Teacher Information

Grades 3-6 for 1 or 2 students.

Time: 2 to 4 periods

Assignment: Be sure that students understand the concept of attributes. Follow directions in books.

IMC Information

Commercial material: The paperback book from McGraw-Hill Book Company, 8171 Redwood Highway, Novato, California 94947.

IMC Information: Catalog the book into the library.

11/76

Independent Curriculum Enrichment Studies

THINKING SKILLS

This study is for

Date to begin is

Your study will be Whodunit?

This is a book of "logic" problems written by students in the Torrance Scho District in southern California. You will select one or more of these prob to solve and will learn to develop a "matrix" of your own to help you solve rather difficult and confusing problems. You will also, if you choose, mak up a logic problem of your own, try it on other students, and send it to th District MGM Coordinator to be used in a similar study if enough are receiv from Lafayette students.

Materials you will need are

**your copy of this contract . . . Take one from the ICES file.

**a copy of the study . . . You may check it out from the ICES file.

**a copy of Whodunit? . . . You will find it in the Media Resource Center. It will be located under the call number 153.4-T.

**pencil

**paper

**ruler

The work you turn in will be

☒ Your solutions to the problems you select
☐ Your own "logic problem" complete with matrix with answers.
☐ I have chosen to do problems no. ____________________

When you need help, see

Try to finish your study by

Turn in the finished work to 752

THINKING SKILLS
Whodunit?

Teacher Information

Grades 2-6 for one student

Time: One to several periods depending on the difficulty and number of problems selected.

Assignment: Students should probably begin by choosing problems written by students at their own grade level and then progress to more difficult ones as they choose. Be sure that the student before attempting his first problem, reads pages 1, 2 and 3 which teaches him how to organize his information using a matrix in order to more easily solve the problems. For students in grades 4, 5 and 6 the study Abominable Logic would be an excellent introduction to this type of problem solving.

IMC Information

Study: Cover and 2 pages

Additional materials: Answer sheets (8½ sides)

Processing: Remove answer sheets (pages 83-99). Xerox back to back and place immediately behind teachers sheet. Xerox copies of Whodunit? as needed and catalog into Media Resource Center.

6/77

* * * ANSWERS * * *

1. ANIMALS

Scott - cat
Steve - bird
Bob - dog

2. THERE THEY GO

Eric - Porsche
Bruce - Datsun
Jon - Go-cart

3. CARS

Earl - Cadillac
Bob - Duster
Jeff - Jaguar
David - Mercury

4. WHO HAD THE SODA?

Renee - gum
Mable - sucker
Marya - ice cream
Yvette - soda

5. THINK DRINKS

Jack - 7-Up
Harry - Fresca
Tom - milkshake
Jim - Coke

6. BOOKS

Gary - sea books
Mary - code books
Bruce - science books
Yvette - mystery books

7. GIRLS AND CARS

Mable - blue car
Dom - white car
Jamie - red car
Renee - black car

8. KIDS AND PETS

John - dog
Mark - bat
Sue - hamster
Mary - cat

Whodunit? answers, p.2

9. WHO OWNS WHICH PET?

Bob - cat
Jim - turtle
Ed - snake
Nick - dog
Joe - fish

10. STORES

Henry - 29 years old - K-Mart
Jim - 24 years old - Two Guys
James - 21 years old - Toys R Us

11. SKIRTS AND KIDS

Dom - red skirt
Mable - green skirt
Renee - yellow skirt
Marya - blue skirt

12. THAT'S MY ANIMAL

Sue - dog - cotton candy
Karen - bird - ice cream
Debbie - cat - popcorn

13. WHO ATE ICE CREAM?

Sally - Wheat Chex and ice cream
Lisa - Pebbles
Tim - Cocoa Puffs

14. WHO LIVED WHERE?

Cathy - orange house on Maple
Brian - brown house on Lake Street
Joann - red house on Anza

15. WHO PLAYED HOCKEY?

Jimmy - 10 years old - hockey
Bob - 9 years old - baseball
Kenny - 12 years old - football

16. TEETH

Johnny - Crest
Mark - Close-Up
Art - Aim

17. PIANO

Mike - 15 years old - flute
John - 12 years old - piano
Jeff - 19 years old - guitar

18. WHO EATS LEMON PIE?

Earl - cherry
Jeff - coconut
Gary - lemon
Brian - apple

19. CHOSEN SPORTS

Dave - water ski
Allan - surf
John - volleyball

20. CHRISTMAS DAY

Sue - 12 years - bike
Kathy - 9 years - storybook
LeRoy - 5 years - Tinker Toys

21. HAIR, HAIR, HAIR

Carrie - 5 years - red hair
Dave - 7 years - brown hair
Timmy - 6 years - blond hair
Karen - 9 years - black hair

22. IS IT A STINGRAY?

Greg - Stingray
Steve - LTD
Chris - Pinto
Jim - Malibu

23. FRUIT

Tom - 7 years - apples
Eric - 10 years - oranges
Susan - 8 years - bananas

24. BOOKS, BOOKS, BOOKS

Kelly - 5 years old - Three Little Pigs
Tommy - 6 years old - Robin Hood
Karen - 7 years old - Peter Pan

25. WHO WAS THE BLOND?

Karen - brown hair - 11 years old
Ann - black hair - 9 years old
Susan - blond hair - 7 years old

26. FIND OUT!!

Mike - Almond Joy - blue
Bob - Hershey Bar - red
Sean - Three Musketeers - green

27. SPORTSMEN

Dave - football
Dan - basketball
Joe - hockey
Frank - baseball

28. TOMATO OR POTATO

Renee - chicken soup
Marya - potato soup
Mable - tomato soup
Jamie - split pea soup

29. DOG CATCHER

Miss Diné - Poodle
Miss Tiny - Hound Dog
Mrs. Nightingale - Cocker Spaniel

30. WHAT COLOR?

Ann - red
Jane - yellow
Heidi - green
Jamie - orange

31. BASEBALL

Greg - football - 9 years old
Mike - baseball - 11 years old
Dave - soccer - 7 years old

32. NEW JOBS

Erin - teacher - 22 years old
Lisa - waitress - 20 years old
Kelly - nurse - 25 years old

33. WHICH SPORT?

Steve - hockey
Mike - football
Lee - soccer
Greg - baseball
Dave - kickball

34. THIRSTY GALS

Renee - Root Beer and Dr. Pepper
Jamie - Pepsi and 7-Up
Marya - Coke and Bubble-Up
Yvette - Fresca and Sprite

35. AT THE CIRCUS

Sam - lion - popcorn
Stanley - tiger - cotton candy
George - camel - snowcone
Mike - zebra - ice cream

36. WHO LOVES HORSES?

Kay - horses
Caren - cows
Sam - birds
Joe - mice
Joy - fish

David - moose
Kelly - pigs
Glenn - dogs

37. WHO LIKES WHAT?

Rob - basketball - waffles
Jack - soccer - pancakes
Mike - football - hamburgers

38. WHOSE CAR IS YELLOW?

Celeste - yellow Pinto
Helen - blue Corvette
Cindy - red Mercedes
Denise - purple Van

39. SCHOOLS AND TEACHERS

Tom - Miss Queen - Hillside
Rob - Mr. Bagley - Parkway
Chris - Mrs. Wendell - Riviera

40. WHO LIKES WHICH CAR?

Pete - Camaro
David - Corvette
Dan - Pantera
Steve - Mustang Mach 1
Bill - Porsche

41. CARS AND GAS

Tom - Cuda - Exxon
Ray - VW Van - Shell
Lee - El Camino - Union 76

42. CHERRIES JUBILEE

Claude - Chocolate Mousse
Ollie - Baked Alaska
Gerard - Cherries Jubilee
Percy - Apple Pie
Stanley - Crepes Suzette

43. WHICH JUMP? WHICH BIKE?

Awful Knaffle - Suzuki - General Sherman
Ferry Daring - XR - Half Dome
Zelton John - Honda - Mt. Shasta
Wild Igor - Harley Davidson - Grand Canyon

44. R.I.P.

1st - Fred
2nd - Tony
3rd - Keith
4th - Bill
5th - Alan
6th - Jack

45. WHO PLAYS WHAT SPORT?

Pat - soccer
Jim - football
Brad - basketball
Tom - baseball

46. WHO'S GOT THE TAFFY?

Tom - Vanilla Taffy - Bit of Honey
John - Crunch Bars - Hershey Chocolate Bars
Sean - Three Musketeers Bars - Chocolate M&M's

47. GREYHOUND RACE

1. Dan
2. Jay
3. Joe
4. Sam
5. Fred

48. PLACE IN THE RACE

First place - Alan
Second place - Todd
Third place - Timmy
Fourth place - David
Fifth place - Dean
Sixth place - Mike
Seventh place - Tony
Eighth place - Sean

49. SPORTS

Todd - Soccer
Alan - Karate
Dean - Swimming
Frank - Skating
Tony - Basketball
Tim - Football
Scott - Baseball

50. BEATLES

Marilyn - Beatles
Mike - Beach Boys
Reid - Wings
Sheri - Eagles
Todd - Carpenters
Marc - Who

51. JAWS

Mr. Fuller - 1st
Mrs. Tull - 2nd
Mrs. Green - 3rd
Mr. Brown - 4th
Mr. Sands was eaten last.

52. ALL IN A ROW

1 - radishes
2 - beans
3 - watermelon
4 - corn
5 - carrots

53. THE GREAT HORSE RACE

1st - Jay
2nd - Joe
3rd - Donald
4th - Charlie
5th - Sam

54. WHO DRIVES WHICH CAR?

Jones - Car and Camper
Stout - Dodge
Silva - Colt
Tonai - Datsun
Cupp - Hot Rod
Tibby - Pickup
Nava - Granada
Smith - Chevy
Johnstone - Ford

55. HORSES FOR WHOM?

Sue - Lippizan - blue
Monica - Arab - purple
Cathy - Palomino - magenta
Karen - Clydesdale - yellow

56. DRAWING A PICTURE

Myra - house
Karen - cars
Anita - mountains
Michelle - lamp
Mary - people

57. WHERE IS THE DRAGON HIDING?

dragon - in the doghouse
cat - under the sofa
dog - behind the bed
raccoon - in the laundry bag
squirrel - in the dishwasher
tiger - in the tree

58. MESSES OF DRESSES

Janice - red and yellow
Patty - green and orange
Sue - magenta and lavender
Candi - turquoise and tan
Cheri - purple and white
Yvonne - pink and blue

59. WHERE ARE YOU GOING?

Monica - Africa - purple
Dawn - Paris - pink
Alisa - Germany - yellow
Deann - Hawaii - light blue

60. THE PARTY

Janet - Tuesday
Karen - Thursday
Jay - Monday
Tammy - Wednesday
David - Friday
Jean - Saturday
Mark - Sunday

61. SPORTS

Jeff - baseball - 11 years old
John - soccer - 13 years old
Bill - football - 12 years old
Mark - swimming - 14 years old
Paul - track - 16 years old
Steve - hockey - 9 years old

62. HAPPY DAYS

Fonzie	Pizza	Garage
Shirley	Meat Loaf	Beer refinery
Laverne	Cereal	Beer refinery
Richie	Hot dogs	Hardware store
Mr. C.	Chicken soup	Hardware store
Potsie	Peanut butter	Band
Ralph	Hamburger	Band
Arnold	Fried Chicken	Restaurant

63. WHO RIDES WHAT TO WORK?

Mr. Snyder - car - Department store
Mrs. Lange - bicycle - Bank
Miss Reeves - motorcycle - Unemployment Office
Mr. Johnson - airplane - Traveling Salesman
Mrs. Reid - bus - Teacher

64. WHO EATS TURKEY?

Steve is 39 and eats bologna.
Richard is 58 and eats hamburger.
Daren is 54 and eats hot dogs.
Charles is 21 and eats pork chops.
Kevin is 29 and eats lamb.
Gary is 40 and eats steak.
Tim is 45 and eats turkey.
Jeff is 80 and eats ribs.
Scott is 73 and eats bacon.
Billy is 20 and eats chicken.

65. BIRTHDAY PARTY

Alice - Yellow - 9 years old - 4th
Jane - Blue - 14 years old - 3rd
Mary - Pink - 8 years old - Gave party
Susan - Green - 10 years old - 2nd
Lisa - Red - 12 years old - 1st

66. WHAT HOCKEY PLAYER GOES WITH WHAT TEAM?

Ken Dryden - Montreal Canadians
Bobby Orr - Boston Bruins
Marcel Dionne - L.A. Kings
Gordie Howe - Detroit Redwings
Mel Bridgeman - Philadelphia Flyers
Borje Salming - Toronto Maple Leafs
Brad Park - New York Rangers
Gil Perreault - Buffalo Sabers
Jocelyn Guerremont - Vancouver Canucks
Garry Unger - St. Louis Blues
Danny Grant - Minnesota North Stars
Greg Polis - Pittsburgh Penguins
Keith Magnuson - Chicago Black Hawks
Gilles Meloche - California Golden Seals

67. FLY WITH ME

Joe - PSA - Cuba
Derek - TWA - England
Alan - Air France - Paris

68. AT THE MOVIES

Alisa - Jaws - popcorn
Sandy - Benjie - coke
Monique - Bananas - hot dogs
Monica - Earthquake - peanuts

69. CHILDREN'S CHOICES

Jane - Malted Milk Balls - Johnson's Candy Store
Julie - Nestle's Crunch - Bob's Candy Store
Mike - Hershey Bars - Crazy Candy Store
Don - M&M's - Newberry's Candy Store

70. THE CIRCUS

The fire-eater is Al Kroon and his favorite color is black.
The fat lady is Roberta Silo and her favorite color is brown.
The aerialist is Lolita Flanders and her favorite color is blue
The lion tamer is Dan Yokis and his favorite color is red.
The bareback rider is Lillian Brown and her favorite color is pink.

71. COLOR CHORDS

Dorothy - sax - blue
Diane - flute - green
Janet - clarinet - red
Barbra - drums - yellow

72. WHO DRINKS ROOT BEER?

Paul - 7-Up - Catholic
Jeff - Coke - Protestant
Craig - Root Beer - Jewish
Brian - Sprite - Atheist

73. PIANO PROBLEMS

Mrs. Cook - Lynn
Mrs. Lum - Jim and Mary
Mrs. Cole - Debbie
Mr. Small - Martin

74. PETS, AGES, AND HAIR COLOR

Jane - dog - blonde - 18 years old
Pearl - cat - red - 11 years old
Susie - hamster - brown - 14 years old
Linda - mouse - brunette - 12 years old
Carmen - fish - black - 7 years old

75. MOVING STORY

John - P.V. Estates - April
Ryan - Westminster - May
Richie - Tokyo - December
David - Sacramento - March
Rick - San Diego - September

76. PETS

The dog is black-spotted and his name is Charles.
The cat is white and his name is Cuddles.
The rabbit is black and his name is Herman.
The hamster is gray and his name is Sidney.

77. ZOO DAZE

Mary - Monday - monkey
Sandy - Tuesday - hippo
Jane - Wednesday - giraffe
Erin - Thursday - elephant
Carol - Friday - lion
Ann - Saturday - otter

78. WHO PLAYS THE TRUMPET?

Steve - Drums - Mrs. Lang
Ann - Flute - Mr. Snyder
Bobby - Trombone - Mr. Stevenson
Mary - Alto Saxophone - Mrs. Smith
Darryl - Baritone - Mr. Weber
Scott - Trumpet - Mr. Rapp
Irene - Clarinet - Mr. Marshall
Billy - Tuba - Mr. Bailey

79. TEACHERS, STUDENTS, AND COATS

Sally - Miss White - Yellow coat
Tim - Mr. Bow - Raincoat
Alice - Mr. Jones - Red coat
David - Mrs. Loning - Blue coat
Cathy - Mrs. Smith - Fuzzy coat

80. WEEKEND DATE

Andy - Jane
Mark - Carol
Pete - Nancy
Matt - Sandy
John - Marsha
Marty - Irene
Larry - Mary

81. SCHOOLS, STUDENTS AND THEIR AGES

Shari - age 6, Elm School
Jan - age 7, Orange School
George - age 9, Pine School
Helen - age 10, Cherry School
Henry - age 11, Jeffrey School
Alice - age 8, Maple School

82. NOSEY FACTS

Susan - canary - yellow - Italian
Julie - parakeet - red - Korean
Jean - goldfish - green - German
Richard - rabbit - blue - American
Jason - guinea pig - purple - Russian
Bill - cat - orange - Mexican
Janette - dog - light blue - Canadian

83. FARMER SMITH

#1 Farmer Smith - Donkey - Fence
#2 Farmer Brown - Horse - Stable
#3 Farmer Jones - Cow - Pasture

84. WHO WAS IN COURT?

Mr. A - Doctor
Mr. B - Policeman
Mr. C - Plumber
Mr. D - Fireman
Mr. E - Lawyer

85. OCCUPATIONS AND CARS

Smith - Datsun - Fireman
Jones - V.W. - Dentist
Brown - Ford - Plumber
Black - Mazda - Policeman
West - Rolls Royce - Doctor

86. CLASS PRESIDENT

Jim - Vice President
Sara - Secretary
John - President
Harry - Adviser

87. WHERE'S THE PLUMBER?

Dennis - Plumber
Mark - Lawyer
Mike - Doctor
Joe - Veterinarian

88. WHO'S FROM WHAT COUNTRY?

Sweden - John
France - Mary
Switzerland - Tom
Netherlands - Gary

89. WHOSE COLOR IS WHOSE?

Mark - blue
Kathy - yellow
David - green
Vicki - purple
Andy - red

90. MUSIC, MUSIC, MUSIC

Mr. D - violin
Mr. F - flute
Mr. Q - clarinet
Mr. R - trombone
Mr. K - harp

91. WHO DRINKS LEMONADE AND EATS PRINGLES?

Wayne likes lemonade and Pringles.
Billy likes Coke and tortilla chips.
Bobby likes fruit punch and chips.
George likes orange soda and Fritos
Mike likes R.B. and corn puffs.

92. OCCUPATIONS

Tom - elementary teacher
Joe - candy store
Mary - police
Jay - dress store

93. WHO DID IT?

Miss Greenbush committed the murder with a rock.

94. SCHOOL DAYS

Mr. X - A.T.
Ms. Libber - P.E.
Miss Purist - English
Mr. Kotter - Social Science
Mrs. Wife - Careers
Ms. Social - Health Education
Miss Sara - Math

95. STICKY PROBLEM

Carol - purple - Bubble Yum
Julie - white - Freedent
Karen - pink - Carefree
Mona - blue - Trident
Jeff - red - Double Bubble
Mike - green - Spearmint
Gary - brown - Dentyne
Earl - orange - Juicy Fruit
Kim - gold - Sour Cherry

96. THE MIXED-UP FILES

Tom - cold - Dr. Turkey
Garry - headache - Dr. Nerd
Jack - flu - Dr. Ferd
Steve - fever - Dr. Kerd
Dawn - chicken pox - Dr. Jeckle

97. DOCTORS AND SPORTS

Tom - Dr. Sno - Hockey
Jack - Dr. S - Basketball
Chris - Dr. Doctor - Swimming
Sam - Dr. Yes - Football
Mike - Dr. No - Baseball

98. MIXED-UP BABIES

Mary and Sam - 1 year - Johnnie - brown
Bob and Alice - 3 years - Carrie - hazel
Jim and Sue - 2 years - Kimmie - blue

99. THE MESSED-UP NEIGHBORS

Patty - Dan - black hair - green eyes
Mary - Mark - red hair - grey eyes
Sally - Bill - brown hair - brown eyes
Jill - Jack - blond hair - blue eyes

100. WHO WENT TO MIYAKO'S?

Kevin and Jennifer	Ford	Bob's Big Boy
Jim W. and Debbie	Mustang	Acapulco's
John and Alexandra	Hot Rod	Denny's
Jim N. and Missy	Fiat	Miyako's
Pete and Robin	Dune Buggy	McDonald's
Steve and Beth	Chevy	Shakey's

101. MIXED-UP MAZE

Joey	9	Mouse	Red
John	11	Rat	Pink
Tim	8	Bird	Dark Yellow
Tom	10	Lizard	Green
Slim	12	Cat	Light Green
Lee	14	Fish	Yellow
Jeff	13	Dog	Blue

102. WHAT'S WHAT?

	I.Q.	Height	Street
Tom	103	60"	19th
Sally	100	55"	223rd
Mike	125	61"	17th
Mark	110	65"	221st
Sam	99	59"	1st

103. WHAT'S YOUR SPORT?

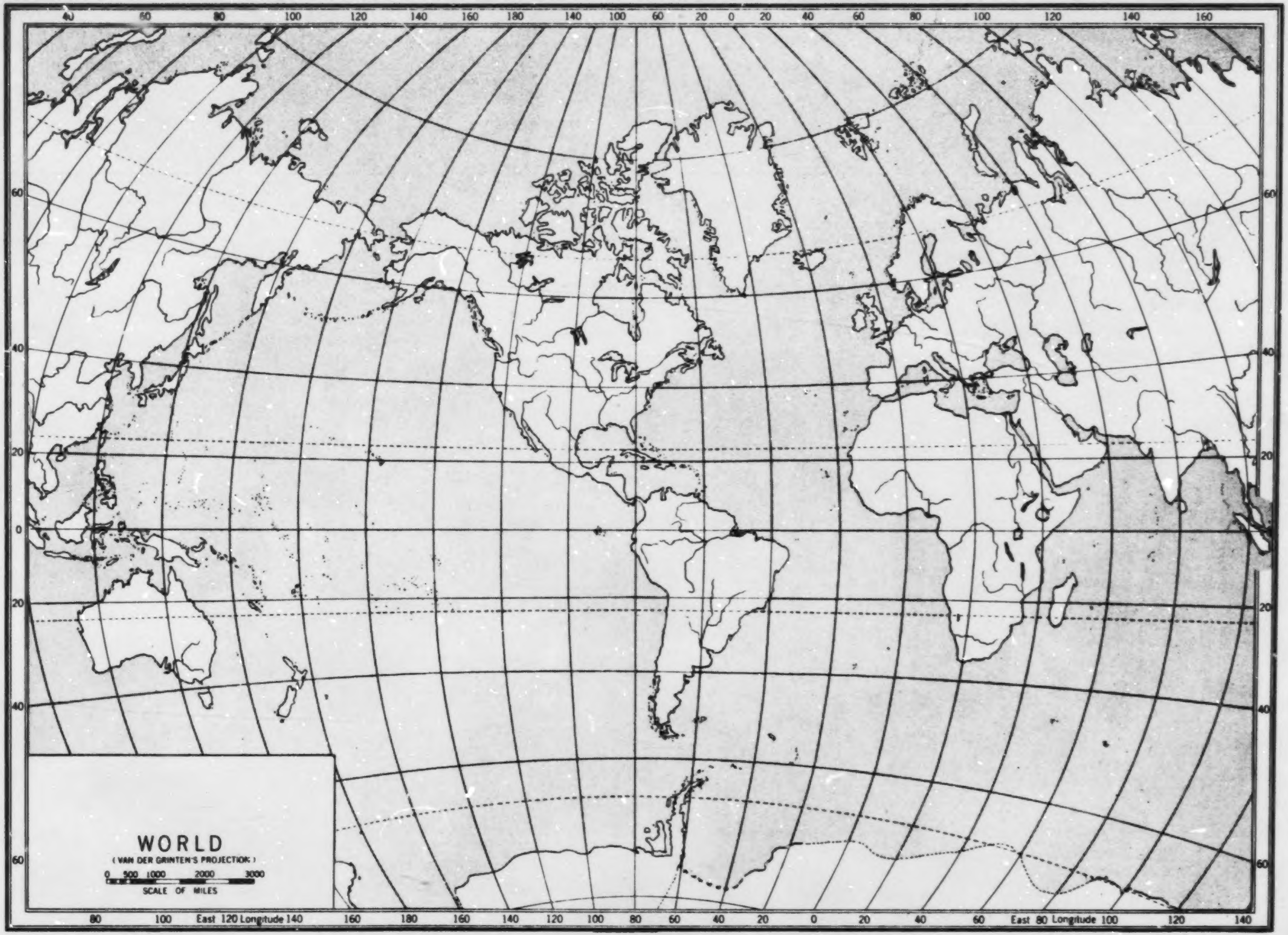
Jim - Ice Hockey - Mr. Hale - Snakes
Frank - Tennis - Mr. Burns - Tigers
Bob - Football - Mr. O'Riely - Bears
Tom - Baseball - Mr. Oden - Lions
John - Basketball - Mr. Miller - Sabres

104. VACATION VEXATION

Name	Place	Tent	Sleeping Bag
Carol	Mammoth	purple	blue
Mona	Cottonwood	blue	purple
Pam	Hawaii	green	gold
Kim	Niagara Falls	pink	pink
Julia	Yellowstone	gold	green
Karen	Sequoia	orange	red
Gary	Las Vegas	brown	brown
Earl	Yosemite	black	aqua
Mike	Lake Piru	red	black
Jeff	beach	yellow	yellow
Brian	San Diego	aqua	orange

105. WHO'S WHO OR WHAT?

Mr. Jones - dog - plumber - 30 years old
Mrs. Browne - cat - clerk - 25 years old
Mr. Smith - skunk - SPCA man - 40 years old
Mr. Burke - lizard - Doctor - 60 years old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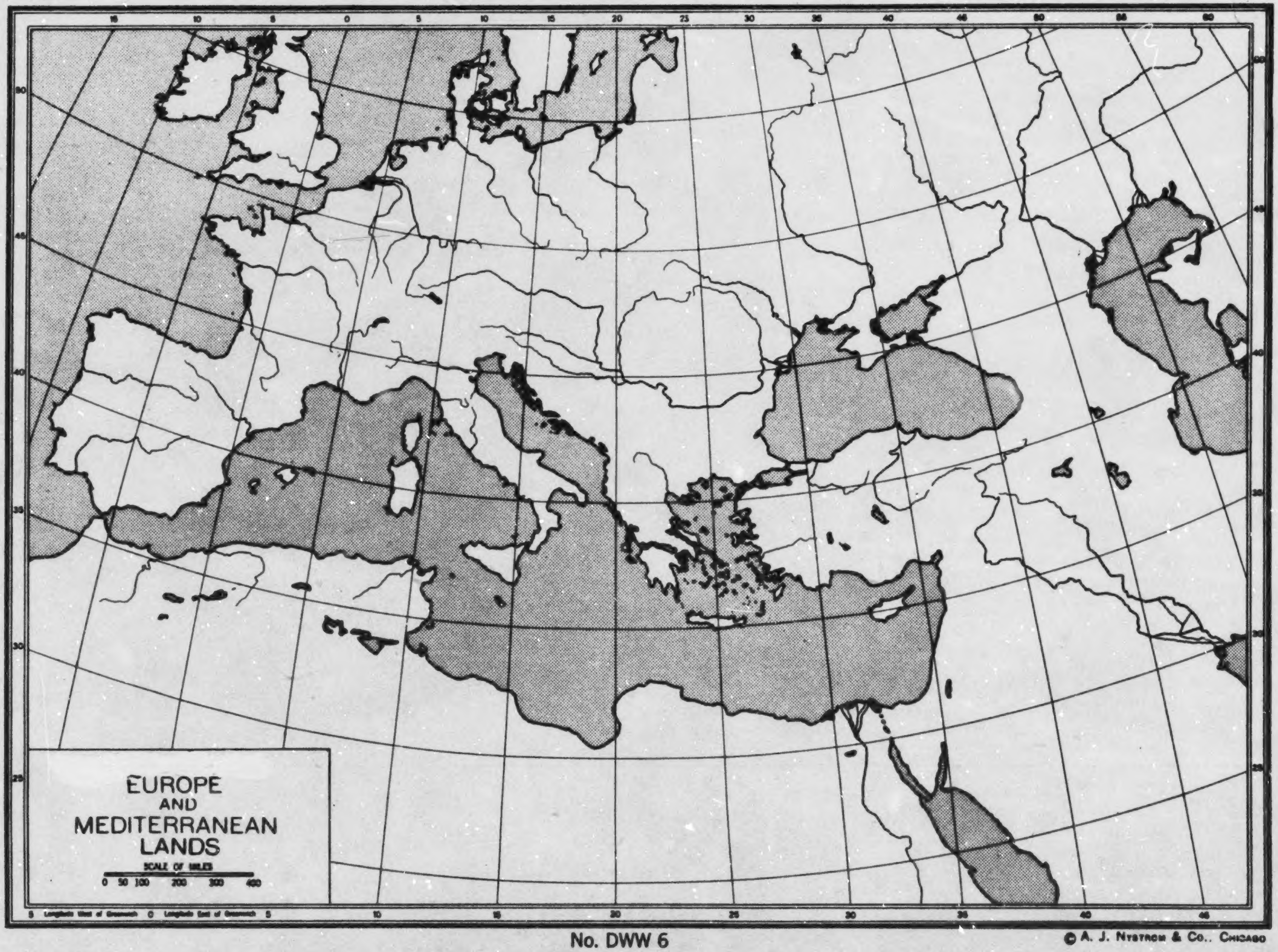
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LANDS
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No. DWW 6

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PREPARING A BIBLIOGRAPHY

A bibliography is a list of books and other materials, usually about a single topic. What information must you write down to make a bibliography?

Book

Author, Title. Publisher, city, year.

Example: Arnold, Oren, Marvels of the U. S. Mail. Abelard-Schuman, New York, 1964.

Signed encyclopedia article

Author, "Title of article," Title of Encyclopedia, vol., edition, pages.

Example: Potter, R. E., "Bottle," Encyclopedia Americana, vol. 4, 1968, pages 330-331.

Unsigned encyclopedia article

"Title of article," Title of Encyclopedia, vol., edition, pages.

Example: "Lafitte, Jean," Encyclopedia Americana, vol. 16, 1961, page 635.

Signed magazine article

Author, "Title of Article," Title of Magazine, date, pages.

Example: Shuster, A., "Swifter Completion of Their Rounds," Saturday Review, March 21, 1964, pages 17-19.

Unsigned magazine article

"Title of Article," Title of Magazine, date, pages.

Example: "Vallejo's Ranch Empire," Motorland, September/October, 1975, page 18.

AV with a known author or composer

Author, Title. Producer, city, year (medium).

Example: Polette, Nancy, Basic Library Skills. Milliken, St. Louis, 1971 (transparencies).

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Example: Polette, Nancy, Basic Library Skills. Milliken, St. Louis, 1971 (transparencies).

AV without an author or composer

Title. Producer, city, year (medium).

Example: Sound Effects, Vol. 2. Audio Fidelity, New York, no date (recording).

Pamphlets are done exactly like books

Examples: Goldberg, Mel, John Brown's Raid. Doubleday, Garden City, 1961.

Uruguay. Washington, D.C., Pan American Union, 1962. American Republics Series, no. 20.

Signed government documents

Country, Agency, Title, by author. Series and/or document number, date.

Example: U. S. Dept. of the Interior, Yorktown and the Siege of 1781, by Charles E. Hatch, Jr. National Park Service Historical Handbook Series, no. 14, 1957.

Unsigned government documents

Country, agency, Title. Series and/or document number, date.

Example: U. S. Congress. Our American Government, What Is It? How Does It Function? House Document no. 92-31, 1971.

Series and sets

If a book or pamphlet is part of a series, put the series title--and number, if given--after all other information.

Example: Uruguay. Washington, D. C., Pan American Union, 1962.
American Republics Series, no. 20.

If a filmstrip is part of a set, show the set title--and number in the set, if there is one--right after the year.

Example: Quickwick's Special Tour. Spoken Arts, New Rochelle, N. Y.,
1973. Quickwick, Your Library Guide, no. 2 (sound filmstrip).

If you use the entire set, use that as the title.

Example: Quickwick, Your Library Guide. Spoken Arts, New Rochelle, N. Y.,
1973 (sound filmstrips).

Notes

Always write an author's name with the last name first.
Capitalize each important word in a title.
Watch where to put commas and periods.
Titles of whole items (a book, a magazine, a filmstrip, etc.) are underlined.
Titles of parts of items (an article in a magazine, an article in an encyclopedia, etc.) are enclosed in quotation marks.
If there is no date, put the words "no date" where the year would go. See Sound Effects, Vol. 2 for an example.

Arranging a bibliography

Give your bibliography a title. You may just call it "Bibliography."
Alphabetize the sources. Alphabetize by the first word except skip "a," "an" or "the" if that is the first word.
Write each item in reverse paragraph form. The first line begins at the margin. All the continuation lines are indented.
Leave one line blank between items.

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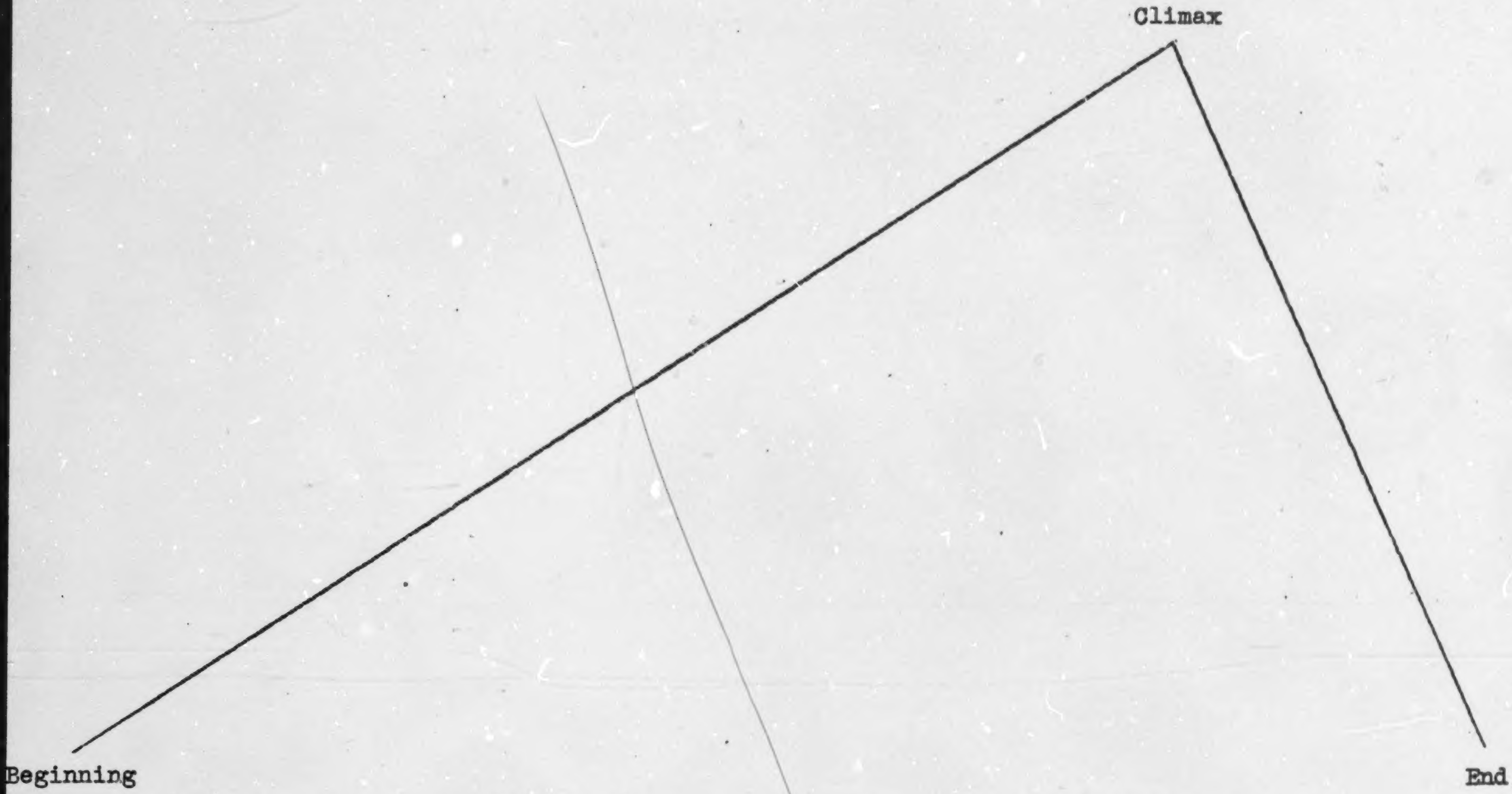
Rev. 8/75

Time


Climax
Beginning
End

Story Chart for ______________________________ by ______________________________

Your name ____________________________________

Time Line

U.S. 1828-1872

		1828	Election—Jackson & Calhoun
		29	
		1830	Provision to remove Indians West
		31	Reaper invented
		32	Black Hawk War; Election—Jackson & Van Buren
		33	Steel-blade plowshare
		34	Colt revolver
2nd Seminole War		35	Cherokee left Georgia; Abolitionist propaganda starts
		36	Bureau of Indian Affairs; The Alamo; Americans in Texas against Mexico; Election—Van Buren & Johnson
		37	
		38	
		39	Antislavery Party; Liberty Party
		1840	Election—Harrison & Tyler
	Settlers to Oregon	41	Death of Harrison; Amistad Case
		42	
		43	Settlers to Calif. in large numbers
		44	Election—Polk & Dallas; Telegraph
		45	Annexation of Texas; Polk "Doctrine"; Manifest Destiny idea begins
	Mexican War	46	Oregon Settlement; Bear Flag Revolt in California
		47	
		48	Gold discovered in Calif.; Treaty of Guadalupe; Women's Rights Convention; Election—Taylor & Fillmore
		49	
		1850	Compromise of 1850; Fugitive Slave Act; Admission of California as a free state
		51	
		52	Election—Pierce & King; Uncle Tom's Cabin published
		53	Gadsden Purchase
		54	Perry opened Japan; Kansas-Nebraska Act; Republican Party
		55	Kansas question
		56	Election—Buchanan & Breckinridge; "Bleeding Kansas"
		57	Dred Scott decision; Panic of 1857
		58	Lincoln-Douglas debates; John Brown's raid
		59	
		1860	Election—Lincoln & Hamlin; South Carolina secedes; Pony Express & Butterfield Stage; Repeating rifle
	Civil	61	Confederate Constitution & election—Davis & Stephens; Fort Sumter; West Va. formed
		62	Revolving machine gun; Homestead Act; Beginning to build Western railroads

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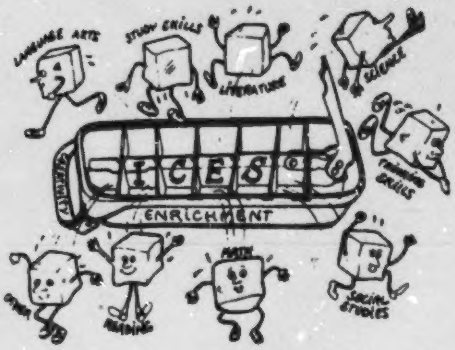
	62	Revolving machine gun; Homestead Act; Beginning to build Western railroads
	63	Emancipation Proclamation
	64	Election—Lincoln & Johnson
Reconstruction to 1877	65	Surrender at Appomattox; Assassination of Lincoln; 13th amendment
	66	Civil Rights Act; 14th amendment
	67	
	68	Attempt to impeach Johnson; Election—Grant & Colfax
	69	
	1870	
	71	
	72	

I.C.E.S.

A Guide for Teachers on How To Use the Independent Curriculum Enrichment Studies Program


LANGUAGE ARTS
STUDY SKILLS
LITERATURE
SCIENCE
ICES ©
THINKING SKILLS
ENRICHMENT
OTHER
READING
MATH
SOCIAL STUDIES

Originally prepared by
Lillian Wehmeyer and Nancy Repp, 1974
Revised by
Art Prindle, MGM Program Coordinator
July, 1976

ICES--WHAT'S IT ALL ABOUT?

Independent Curriculum Enrichment Studies are an adaptation of the Learning Activity Packages first developed in Florida. Our activity packages, studies, are different from the original "LAPS" in that:

(1) they bring together commercial and teacher-made materials in a single program;

(2) they emphasize enrichment rather than basic subject areas in the curriculum;

(3) they are planned to respond to needs of MGM (Mentally Gifted Minor) students;

(4) they may be designed for use by small groups or individuals, rather than for individuals only.

The ICES program is designed for MGM students. Since these students tend to be most successful at academic tasks, materials and activities are selected to maximize this ability. Many MGM students are not highly creative, but they do need practice in creativity. Therefore, many ICES include some suggestions for creative activities, also. End products are often to be shared with classmates.

While not listed in the studies, a clear objective underlies each study and activity. An effort has been made to stimulate the student's higher level thinking skills.

The ICES File

The pages of each study in the ICES files have been placed in plastic sleeves to preserve them and to help keep down the cost of the program. The studies are filed alphabetically by title and are available in envelopes with pockets and check-out cards so that they may be checked out just like a library book.

Teacher's Binders

These contain a Table of Contents for all ICES studies which is updated periodically as new studies are added to the program. The binders are arranged alphabetically both by section and by the studies within each section. Binders also contain teacher's sheets and copies of any consumable materials for each study. Teacher answer sheets are also included for all studies in which students are asked questions for which there are specific answers. Have a binder at hand as you continue to read.

The Teacher's Sheet

The unifying feature of ICES is the teacher's sheet. Every item in the program, whether commercially manufactured or written by a teacher, has a teacher's sheet. Commercial materials may take any of the following forms:

task cards
tape-recorded lessons
programmed instruction
workbooks for self-instruction
manipulative materials with discovery activities
...and so on.

In you teacher's binder turn to Pattern Block Task Cards in the Math section. The front of the teacher's sheet is exactly the same as the student's contract which is used to write up his/her assignment. (The student contract form has a "log" on the back where the student records the date, time spent and work accomplished.)

Look at the box "Your study will be". Here you see the title of the study. If a literature study, this box will give you (and the student) some idea of what the book is about. For other types of studies this box will describe the materials which will be used. Also, this box usually will give you (and the student) some idea as to what will be required of the student doing the study. This should help you both decide which study the student should undertake. There are some studies which are open-ended. That is, they are not designed to go with any particular book or set of materials but can be used with materials of the student's choice and may be repeated by a student many times if he so desires. An example of such a study is Find Out About in the General section.

The box "Materials you will need are" tells what is needed and where to get it. The commercial item - task cards, tape recording or whatever - is usually cataloged into the Media Resource Center (=library). If so, the library call number is provided here. For an example, see the teacher's sheet for One to Ten, Count Again in the "Perception" section.

ICES studies require a product or some tangible output which can be evaluated. The box "The work you turn in will be" specifically lists what must be turned in when the study is completed. For many studies everything listed in the box is required. For others there are optional choices from which the teacher and student can select what will be included on the student's contract. For some examples of types of products look at "The work you turn in will be" boxes on the teacher's sheets for:

Comets in the Science section,
Half Magic in the Literature section, and
Think-a-bit in the Thinking Skills section.

"When you need help, see" is used to tell the child whom to see (teacher or aide) and sometimes, at what point to consult someone.

"Try to finish your study by" provides an estimate of the length of time an MGM pupil will probably need to complete the work, based on a time period of 40 minutes per day (=200 minutes per week of "qualitatively different instruction"). In actual practice the times will vary, and the student must realize that he is free to ask for an extension or should arrange to see the teacher if he finishes ahead of time. Occasionally, once having begun a study, a student will lose interest completely after learning it wasn't what he/she expected. In such cases this study may be dropped and another begun. This practice should not be encouraged,

but rather should be treated as a learning experience so that the student will make a more extensive survey of the studies before selecting one.

Now turn the page and look at the back of one of the teacher's sheets. In the upper left hand corner each sheet tells the name of the section of the binder and the name of the study. Under "Teacher Information" it gives the number of students for which the study is intended (ranging from one to several), and the grade levels for which it is appropriate. Note that the grade levels are intended to indicate the study is appropriate for MGM students of the grade level shown. You are also given the approximate number of periods it might take a student to complete the study. This is based on a 40-minute period. This will vary greatly from student to student and, because of your knowledge of a particular individual, you will be the best judge of this.

Many of the teachers sheets also provide additional information here listed under "Assignment". Specific information is provided about how the student's assignment for this study should be made, for instance, reminders to check certain information on the student's contract. For an example look at the teacher's sheet for the Math Applications Kit in the Math section.

For studies which include them, this is where teacher answer sheets are provided. These will either be on the back of the teacher's sheet (where room permits) or will be on a separate sheet immediately following the teacher's sheet. (Example: Soma Cubes in the Math section.)

On the back of the teacher's page you will also see information which is mainly for the clerical staff at the IMC. This section lists the number of pages in the study, any consumable materials, and any commercial materials including the publisher and the cost of these items. It also gives instructions for processing the material. Consumable items may be ordered from IMC when the supply is exhausted.

HOW CAN YOU USE ICES

In its three years of existance ICES has accumulated a large amount of materials. It will take a while for you to become familiar with them. For that reason you might wish to start the program with just a single student or two. Think about some particular MGM student in your class (perhaps one who already has good independent work habits; he may be able to help others get into the routine later.)

Does he: need enrichment in a basic subject?
need encouragement to be creative?
need to be stimulated to use his higher thinking skills?
need to learn to pursue a subject on his own?

Just what does he need to make his school experience richer, fuller and more fulfilling.

Look over the ICES Table of Contents in your binder. Decide which subject areas best meet his needs and interests. Meet with the student and suggest

several studies which sound the most interesting and fun.

From the ICES files look over the studies themselves. See which the student will select. Many MGM students have enjoyed working on more than one study at a time; perhaps a long term math project and other shorter book studies. This tends to keep their interest higher as they achieve a sense of satisfaction from completing the shorter ones often, although at the same time they may be really challenged by the longer term projects. MGM students will vary greatly on this although many of them enjoy having several "irons in the fire".

When your student has selected a study he should get a contract for that study from the ICES files. Together, fill out the front of the contract:

- -the student's name
- -the beginning date
- -the work to be turned in
- -whom to see if help is needed
- -a goal date for completing the study
- -to whom it should be given when the study is completed

The student is now ready to assemble the materials which are needed for the study. Most of these are listed on the front of the contract. He should be reminded to fill in the "log" on the back of his contract each time he works on the study.

Pupil Profile Sheets

For each student just starting the ICES program the teacher or MGM Resource Aide should obtain a Pupil Profile Sheet from the ICES files. On this sheet a record is kept of the name of his study, the date started and the date completed. The Pupil Profile Sheet should be placed in a folder with the pupils name. This folder may be kept in the classroom or in the area where the MGM Resource Aide works. Student Contracts when completed may also be filed in this folder. Thus at any time one can easily determine how much a child has accomplished since the beginning of the year.

Evaluation of Student's Work

The teacher, the MGM Resource Aide or both should evaluate the student's work in terms of:

a. his ability to pursue a subject on his own (independent work habits)
b. the creativity he has shown (if parts of the study encourage it)
c. the extent to which he has shown the use of higher level thinking skills in completing the study
d. the degree to which he has gone beyond or branched out from the regular classroom program (acceleration and enrichment)

Evaluation of ICES Studies

Have the student obtain a Student Evaluation Sheet from the files and fill it out, discussing with you his feelings about the study. Primary teachers will probably wish to ask the questions verbally and jot down the answers themselves.

Important! The ICES authors need student feedback in order to improve the program, so please don't forget the evaluation sheet. We hope to weed out the least interesting studies and replace them with more exciting and challenging materials. Thank you for your help. Send all student evaluations to the MGM Coordinator.

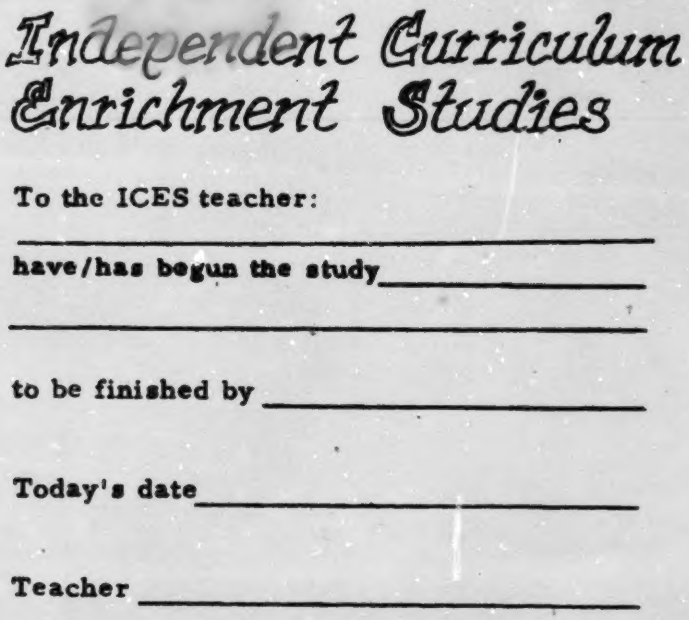
We are interested in having teachers write studies to be included in the program. If you are not interested in writing one, but perhaps feel a need for one in a particular subject area or a specific topic, please let us know. We will make every effort to accommodate you.

As the year progresses, try to read and review as many of the studies appropriate for your grade level as possible. Your familiarity with the studies will make you an ICES devotee for your MGM students.

If you have an MGM Resource Aide

It is important that there be two-way communication between the aide and the teacher so that both are aware of what studies each child is working on at any given time. Obviously face to face planning for each child is always best, but in any school finding time for this is a problem.

Some MGM Resource Aides have found it helpful to use the 3" x 5" form shown below:



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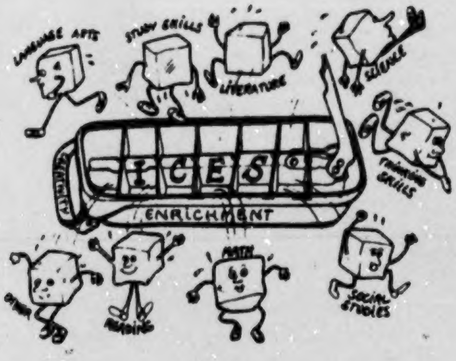
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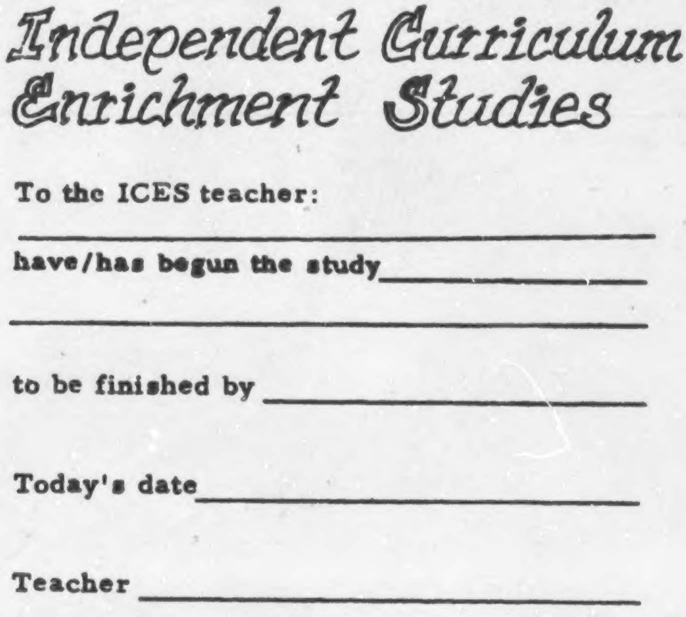

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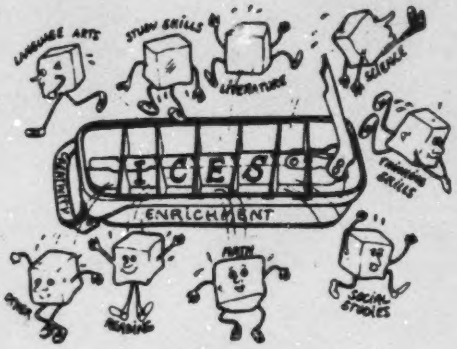
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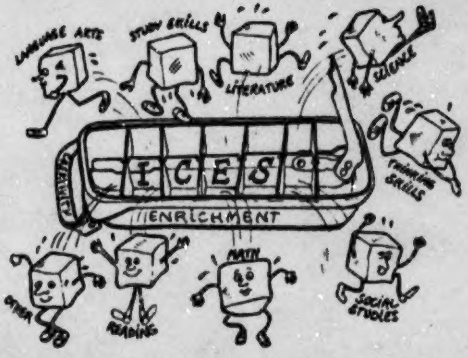
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On the back of the teacher's page you will also see information which is mainly for the clerical staff at the IMC. This section lists the number of pages in the study, any consumable materials, and any commercial materials including the publisher and the cost of these items. It also gives instructions for processing the material. Consumable items may be ordered from IMC when the supply is exhausted.

HOW CAN YOU USE ICES

In its three years of existance ICES has accumulated a large amount of materials. It will take a while for you to become familiar with them. For that reason you might wish to start the program with just a single student or two. Think about some particular MGM student in your class (perhaps one who already has good independent work habits; he may be able to help others get into the routine later.)

Does he: need enrichment in a basic subject?
need encouragement to be creative?
need to be stimulated to use his higher thinking skills?
need to learn to pursue a subject on his own?

Just what does he need to make his school experience richer, fuller and more fulfilling.

Look over the ICES Table of Contents in your binder. Decide which subject areas best meet his needs and interests. Meet with the student and suggest

several studies which sound the most interesting and fun.

From the ICES files look over the studies themselves. See which the student will select. Many MGM students have enjoyed working on more than one study at a time; perhaps a long term math project and other shorter book studies. This tends to keep their interest higher as they achieve a sense of satisfaction from completing the shorter ones often, although at the same time they may be really challenged by the longer term projects. MGM students will vary greatly on this although many of them enjoy having several "irons in the fire".

When your student has selected a study he should get a contract for that study from the ICES files. Together, fill out the front of the contract:

- the student's name
- the beginning date
- the work to be turned in
- whom to see if help is needed
- a goal date for completing the study
- to whom it should be given when the study is completed

The student is now ready to assemble the materials which are needed for the study. Most of these are listed on the front of the contract. He should be reminded to fill in the "log" on the back of his contract each time he works on the study.

Pupil Profile Sheets

For each student just starting the ICES program the teacher or MGM Resource Aide should obtain a Pupil Profile Sheet from the ICES files. On this sheet a record is kept of the name of his study, the date started and the date completed. The Pupil Profile Sheet should be placed in a folder with the pupils name. This folder may be kept in the classroom or in the area where the MGM Resource Aide works. Student Contracts when completed may also be filed in this folder. Thus at any time one can easily determine how much a child has accomplished since the beginning of the year.

Evaluation of Student's Work

The teacher, the MGM Resource Aide or both should evaluate the student's work in terms of:

a. his ability to pursue a subject on his own (independent work habits)
b. the creativity he has shown (if parts of the study encourage it)
c. the extent to which he has shown the use of higher level thinking skills in completing the study
d. the degree to which he has gone beyond or branched out from the regular classroom program (acceleration and enrichment)

Evaluation of ICES Studies

Have the student obtain a Student Evaluation Sheet from the files and fill it out, discussing with you his feelings about the study. Primary teachers will probably wish to ask the questions verbally and jot down the answers themselves.

Important! The ICES authors need student feedback in order to improve the program, so please don't forget the evaluation sheet. We hope to weed out the least interesting studies and replace them with more exciting and challenging materials. Thank you for your help. Send all student evaluations to the MGM Coordinator.

We are interested in having teachers write studies to be included in the program. If you are not interested in writing one, but perhaps feel a need for one in a particular subject area or a specific topic, please let us know. We will make every effort to accommodate you.

As the year progresses, try to read and review as many of the studies appropriate for your grade level as possible. Your familiarity with the studies will make you an ICES devotee for your MGM students.

If you have an MGM Resource Aide

It is important that there be two-way communication between the aide and the teacher so that both are aware of what studies each child is working on at any given time. Obviously face to face planning for each child is always best, but in any school finding time for this is a problem.

Some MGM Resource Aides have found it helpful to use the 3" x 5" form shown below:

Independent Curriculum Enrichment Studies

To the ICES teacher:

____

have/has begun the study ______________

____

to be finished by ______________

Today's date ______________

Teacher ______________

These forms are available from the IMC if you wish to use them.

Another suggested format you may wish to use or modify is pictured below:

Teacher____________________

MGM Students	Name of Study	Date Begun	To be Completed	Check when Completed	Comments
MGM Student					

You may wish to modify this form to show when conferences with the student and the teacher and MGM Resource Aide have been held or are to be held.